CDP-CX300/CX350/CX691

SERVICE MANUAL

Ver. 1.1 2005.08

US Model
CDP-CX300/CX350/CX691
Canadian Model
CDP-CX300/CX350
AEP Model
UK Model
Australian Model
CDP-CX350

Photo; CDP-CX350

Model Name Using Similar Mechanism	NEW
CD Mechanism Type	CDM54-KIBD35E
Base Unit Type	KSM-213BFN/M-NP
Optical Pick-up Type	KSM-213BFN

SPECIFICATIONS

Compact disc player

Laser Semiconductor laser (λ = 780 nm)
Emission duration: continuous

Laser output Max 44.6 µW*
* This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up block with 7 mm aperture.

Frequency response 20 Hz to 20 kHz ±0.5 dB

Signal-to-noise ratio CDP-CX350: More than 108 dB
CDP-CX300/CX691: More than 107 dB

Dynamic range More than 93 dB

Harmonic distortion Less than 0.0045 %

Channel separation More than 100 dB

Outputs

	Jack type	Maximum output level	Load impedance
LINE OUT	Phono jacks	2 V (at 50 kilohms)	Over 10 kilohms
DIGITAL OUT (OPTICAL)	Optical output connector	–18 dBm	Wave length: 660 nm

General

Power requirements

Where purchased	Power requirements
USA	120 V AC, 60 Hz
Australia	240 V AC, 50/60 Hz

Power consumption CDP-CX350: 13 W

Dimensions (approx.) (w/h/d) 430 × 189 × 484 mm (17 × 7 1/2 × 19 in.) incl. projecting parts

Mass (approx.) CDP-CX350: 8.5 kg (18 lbs 12 oz)

Supplied accessories

- Audio cord (1)
- CD booklet holders (3) and label (1)
- Remote commander (remote) (1) (CDP-CX300/CX350 only)
- Size AA (LR6) batteries (3)
- Size AA (NS) batteries (2) (CDP-CX300 only)

Design and specifications are subject to change without notice.

COMPACT DISC PLAYER

9-928-884-12
2005H02-1
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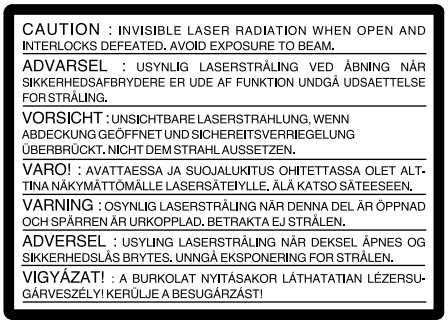
Sony Corporation
Audio Group
Published by Sony Engineering Corporation

SONY®

Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.


CAUTION : INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.
ADVARSEL : USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION UNDGÅ UDSAETTELSE FOR STRÅLING.
VORSICHT : UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET UND SICHEREITSVERRIEGELUNG ÜBERBRÜCKT. NICHT DEM STRAHL AUSSETZEN.
VARO! : AVATTAESSA JA SUOJALUKITUS OHITETTASSA OLET ALTTINA NÄKYMÄTTÖMÄLLE LASERSÄTEIYLLE. ÄLÄ KATSO SÄTEESEEN.
VARNING : OSYNLIG LASERSTRÅLING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.
ADVERSEL : USYLING LASERSTRÅLING NÅR DEKSEL ÅPNES OG SIKKERHEDSLÅS BRYTES. UNNGÅ EKSPONERING FOR STRÅLEN.
VIGYÁZAT! : A BURKOLAT NYITÁSAKOR LÁTHATATIAN LÉZERSUGÁRVESZÉLY! KERÜLJE A BESUGÁRZÁST!

The following caution label is located inside of the unit.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of soldering iron around 270˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:
Check the antenna terminals, metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE

The AC leakage from any exposed metal part to earth Ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers’ instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The “limit” indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

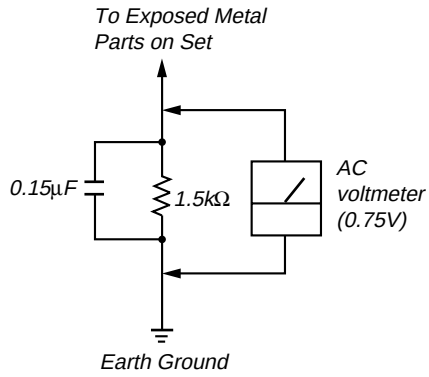
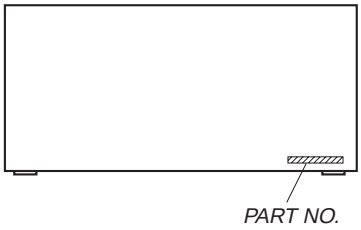


Fig. A. Using an AC voltmeter to check AC leakage.

MODEL IDENTIFICATION — BACK PANEL —



PARTS No.	MODEL
4-215-964-0☐	CX300 : US
4-215-964-1☐	CX300 : CND
4-215-964-2☐	CX350 : US
4-215-964-3☐	CX350 : CND
4-215-964-4☐	CX350 : AEP, UK
4-215-964-5☐	CX350 : AUS
4-215-964-7☐	CX691 : US

- Abbreviation
  CND : Canadian model
  AUS : Australian model

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NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repain parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.
The emission check enables continuous checking of the S curve.

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

Carry out the “S curve check” in “CD section adjustment” and check that the S curve waveform is output three times.

CD-TEXT TEST DISC

This unit is able to display the TEXT data (character information) written in the CD on its fluorescent indicator tube.
The CD-TEXT TEST DISC (TGCS-313:J-2501-126-A) is used for checking the display.
To check, perform the following procedure.

Checking Method:

1. Turn ON the power, set the disc on the disc table with the side labeled as “test disc” as the right side, close the front cover, and chuck the disc.
2. The following will be displayed on the fluorescent indicator tube. (The display switches each time the TIME/TEXT button is pressed.)
   Display : CD TEXT TEST DISC (Album Title)
3. Press the ▷ button and play back the disc.
4. The following will be displayed on the fluorescent indicator tube. (If nothing is displayed, press the TIME/TEXT button.)
   Display : 1kHz/0 dB/ L&R
5. Rotate ⏮ and ⏭ knob to switch the track. The text data of each track will be displayed.
   For details of the displayed contents for each track, refer to “Table 1 : CD-TEXT TEST DISC Text Data Contents” and “Table 2 : CD-TEXT TEST DISC Recorded Contents and Display”.

Restrictions in CD-TEXT Display

In this unit, some special characters will not be displayed properly. These will be displayed as a space or a character resembling it. For details, refer to “Table 2 : CD-TEXT DISC Recorded Contents and Display”.

Table 1 : CD-TEXT TEST DISC Text Data Contents (TRACKS No. 1 to 41:Normal Characters)

TRACK No.	Displayed Contents	TRACK No.	Displayed Contents
1	1kHz/0dB/L&R	22	1kHz/-90dB/L&R
2	20Hz/0dB/L&R	23	Infinity Zero w/o emphasis//L&R
3	40Hz/0dB/L&R	24	Infinity Zero with emphasis//L&R
4	100Hz/0dB/L&R	25	400Hz+7kHz(4:1)/0dB/L&R
5	200Hz/0dB/L&R	26	400Hz+7kHz(4:1)/-10dB/L&R
6	500Hz/0dB/L&R	27	19kHz+20kHz(1:1)/0dB/L&R
7	1kHz/0dB/L&R	28	19kHz+20kHz(1:1)/-10dB/L&R
8	5kHz/0dB/L&R	29	100Hz/0dB/L*
9	7kHz/0dB/L&R	30	1kHz/0dB/L*
10	10kHz/0dB/L&R	31	10kHz/0dB/L*
11	16kHz/0dB/L&R	32	20kHz/0dB/L*
12	18kHz/0dB/L&R	33	100Hz/0dB/R*
13	20kHz/0dB/L&R	34	1kHz/0dB/R*
14	1kHz/0dB/L&R	35	10kHz/0dB/R*
15	1kHz/-1dB/L&R	36	20kHz/0dB/R*
16	1kHz/-3dB/L&R	37	100Hz Squer Wave//L&R
17	1kHz/-6dB/L&R	38	1kHz Squer Wave//L&R
18	1kHz/-10dB/L&R	39	1kHz w/emphasis/-0.37dB/L&R
19	1kHz/-20dB/L&R	40	5kHz w/emphasis/-4.53dB/L&R
20	1kHz/-60dB/L&R	41	16kHz w/emphasis/-9.04dB/L&R
21	1kHz/-80dB/L&R		

NOTE : The contents of Track No. 1 to 41 are the same as those of the current TEST DISC-their titles are displayed.

Table 2: CD-TEXT TEST DISC Recorded Contents and Display
(In this unit, some special characters cannot be displayed. This is no a fault.)

TRACK No.	Recorded contents	Display
42	! ” # $ % & ´ (21h to 27h)1kHz 0dB L&R	← All the same
43	( ) * + , – . / (28h to 2Fh)	← All the same
44	0 1 2 3 4 5 6 7 (30h to 37h)	← All the same
45	8 9 : ; < = > ? (38h to 3Fh)	← All the same
46	@A B C D E F G (40h to 47h)	← All the same
47	H I J K L M N O (48h to 4Fh)	← All the same
48	P Q R S T U V W (50h to 57h)	← All the same
49	X Y Z [¥] ^ _ (58h to 5Fh)	X Y Z [\ ] ^ _ (58····
50	` a b c d e f g (60h to 57h)	← All the same
51	h i j k l m n o (68h to 6Fh)	← All the same
52	p q r s t u v w (70h to 77h)	← All the same
53	x y z { l } ~ ▉ (78h to 7Fh)	x y z { l } ~ (78····
54	▉ ¡ ¢ £ ¤ ¥ ¦ § (A0h to A7h) 8859-1	¡ ¢ £ ¤ ¥ ¦ § (A0···· ▉ is not displayed
55	♪ ©ª « ¬ ®¯ (A8h to AFh)	♪ (A8···· ©ª « ¬ ®¯ are not displayed
56	· ± ² ³ ´ µ ¶ • (B0h to B7h)	´ µ • (B0···· · ± ² ³ ¶ are not displayed
57	† ¹ º » ¼ ½ ¾ ¿ (B8h to BFh)	† ¿ (B8···· ¹ º » ¼ ½ ¾ are not displayed
58	À Á Â Ã Ä Å Æ Ç (C0h to C7h)	← All the same
59	È É Ê Ë Ì Í Î Ï (C8h to CFh)	← All the same
60	Ð Ñ Ò Ó Ô Õ Ö × (D0h to D7h)	← All the same
61	Ø Ù Ú Û Ü Ý Þ ß (D8h to DFh)	Φ Ù Ú Û Ü Ý Þ ß (D8····
62	à á â ã ä å æ ç (E0h to E7h)	← All the same
63	è é ê ë ì í î ï (E8h to FFh)	← All the same
64	ð ñ ò ó ô õ ö ÷ (F0h to F7h)	ð ñ ò ó ô õ ö ÷ (F0····
65	ø ù ú û ü ý þ ÿ (F8h to FFh)	← All the same
66	No.66	← All the same
67	No.67	← All the same
to	to	to
99	No.99	← All the same

SECTION 2
GENERAL

Front Panel

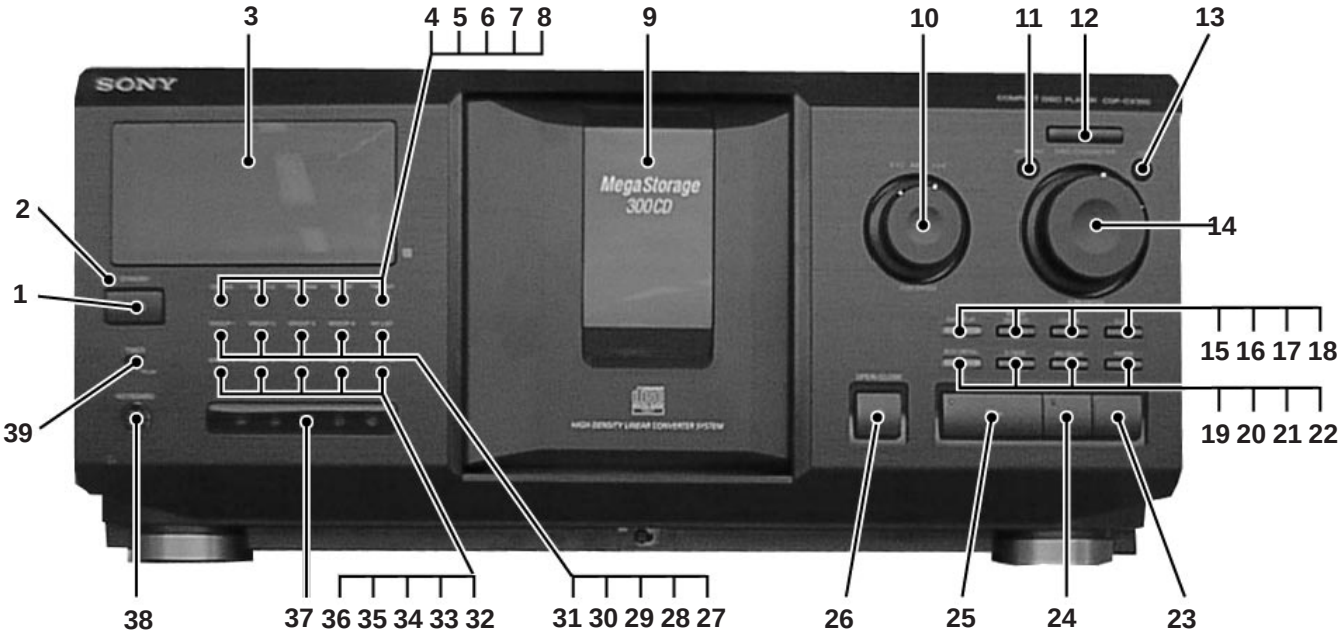


Photo: CDP-CX350

LOCATION OF PARTS AND CONTROLS

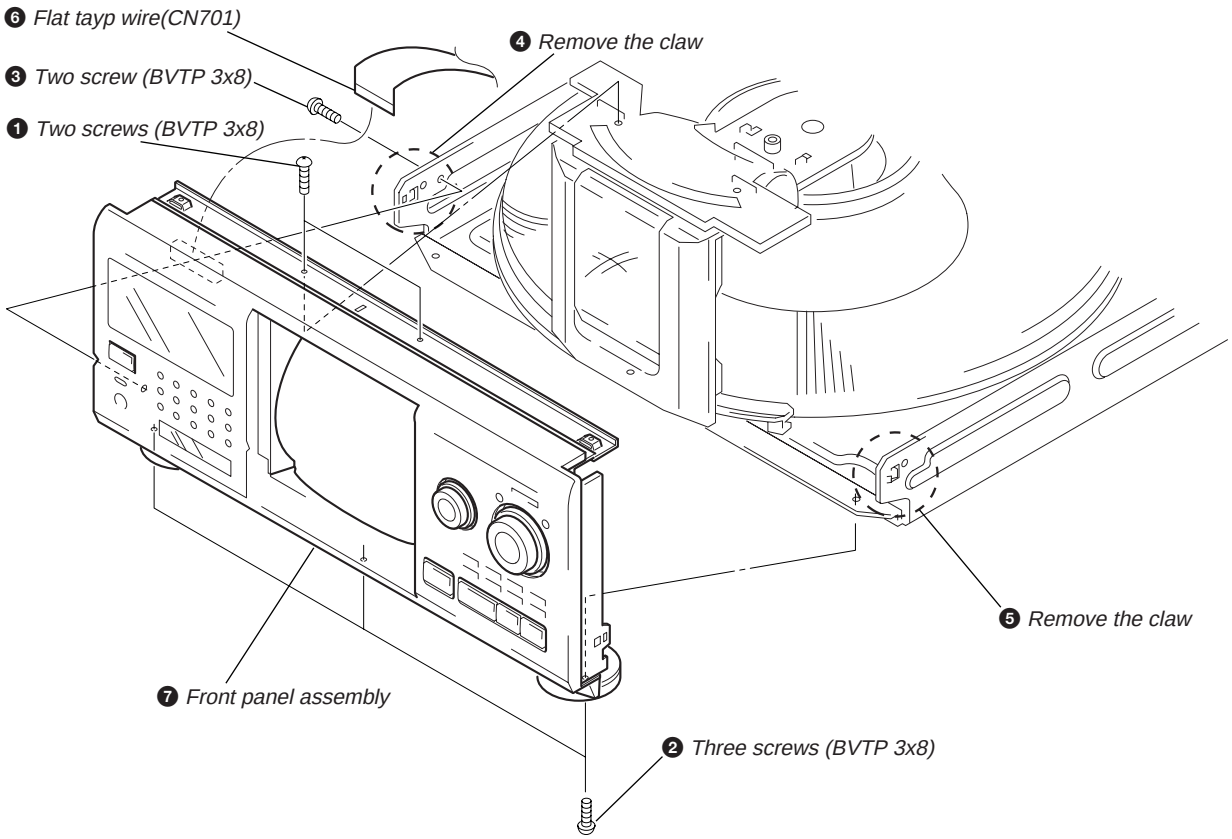
1 I/⏻ (power) button
2 STANDBY indicator
3 Display window
4 CONTINUE button
5 SHUFFLE button
6 PROGRAM button
7 REPEAT button
8 TIME/TEXT button
9 Front cover
10 ⏮ AMS ⏭/PUSH ENTER knob and button
11 MENU/NO button
12 +100 button
13 YES button
14 DISC/CHARACTER/PUSH ENTER knob and button
15 EASY PLAY button and indicator
16 MEMO/SEARCH button
17 CHECK button
18 CLEAR button
19 MEGA CONTROL button and indicator
20 X-FADE button
21 NO DELAY button
22 FADER button
23 ■ (stop)/DISC EJECT button
24 ❚❚ (pause) button and indicator
25 ▷ (play) button and indicator
26 ⏏ OPEN/CLOSE button
27 HIT LIST button and indicator
28 GROUP 4 button and indicator
29 GROUP 3 button and indicator
30 GROUP 2 button and indicator
31 GROUP 1 button and indicator
32 GROUP FILE button
33 GROUP 8 button and indicator
34 GROUP 7 button and indicator
35 GROUP 6 button and indicator
36 GROUP 5 button and indicator
37 IR Repeater window (CDP-CX350)
38 KEYBOARD jack
39 TIMER OFF/PLAY switch

* AMS is abbreviation for Automatic Music Sensor.

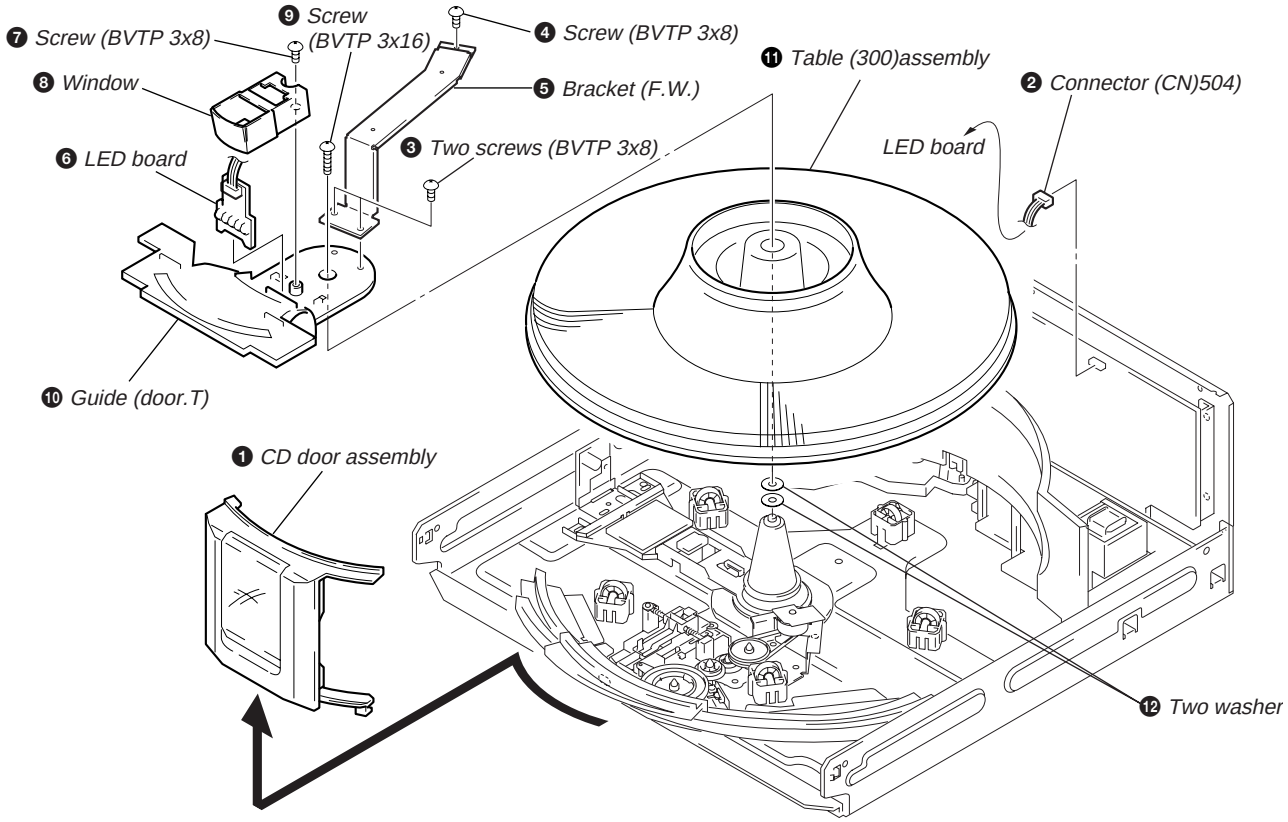
SECTION 3
DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

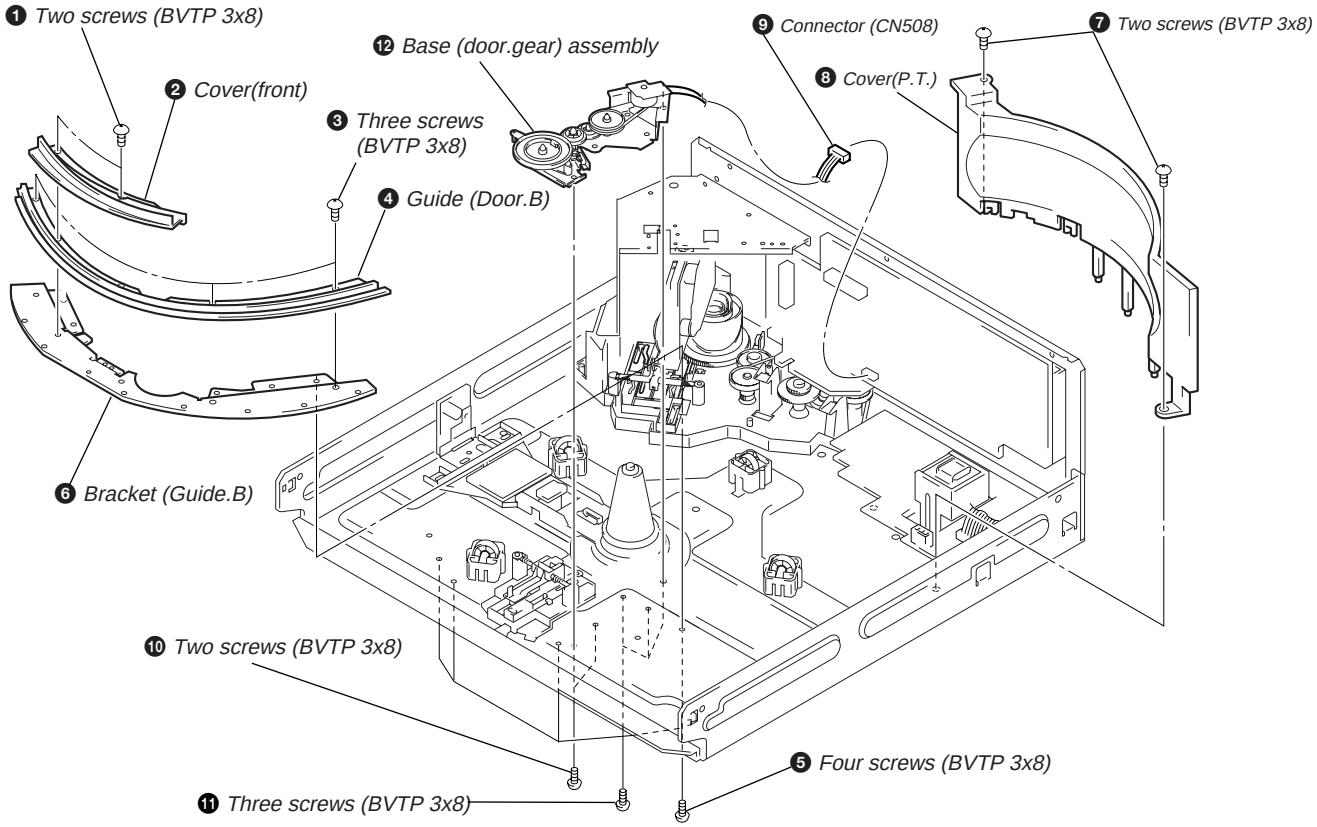
3-1. FRONT PANEL ASSEMBLY


❻ Flat tayp wire(CN701)
❹ Remove the claw
❸ Two screw (BVTP 3x8)
❶ Two screws (BVTP 3x8)
❺ Remove the claw
❼ Front panel assembly
❷ Three screws (BVTP 3x8)

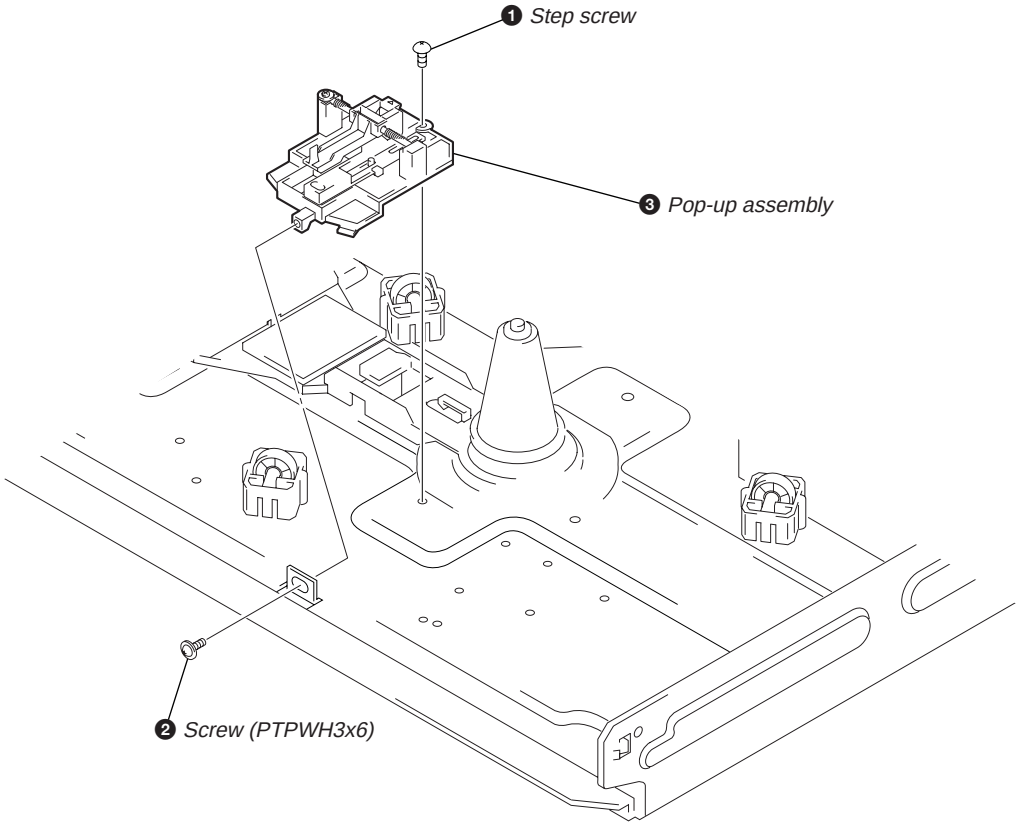
3-2. TABLE (300) ASSEMBLY



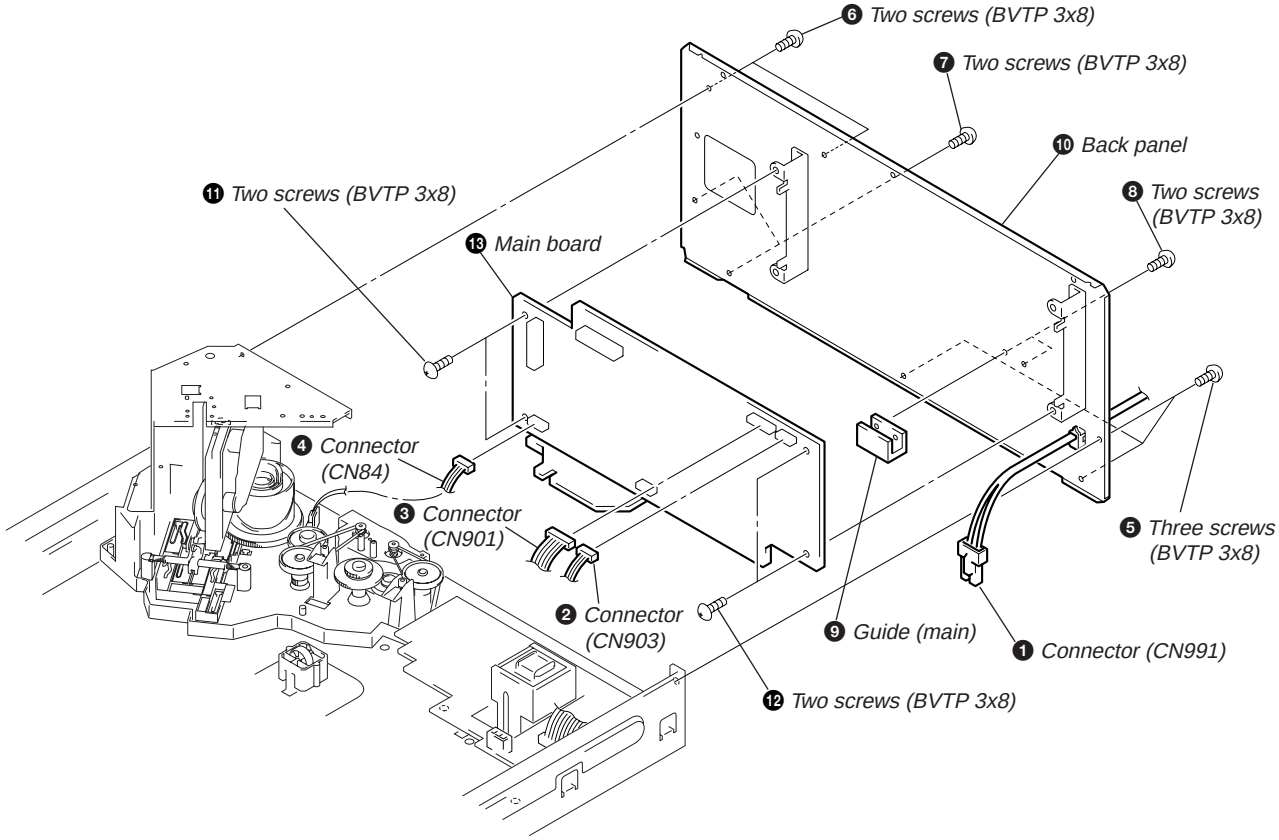
3-3. BASE (DOOR, GEAR) ASSEMBLY



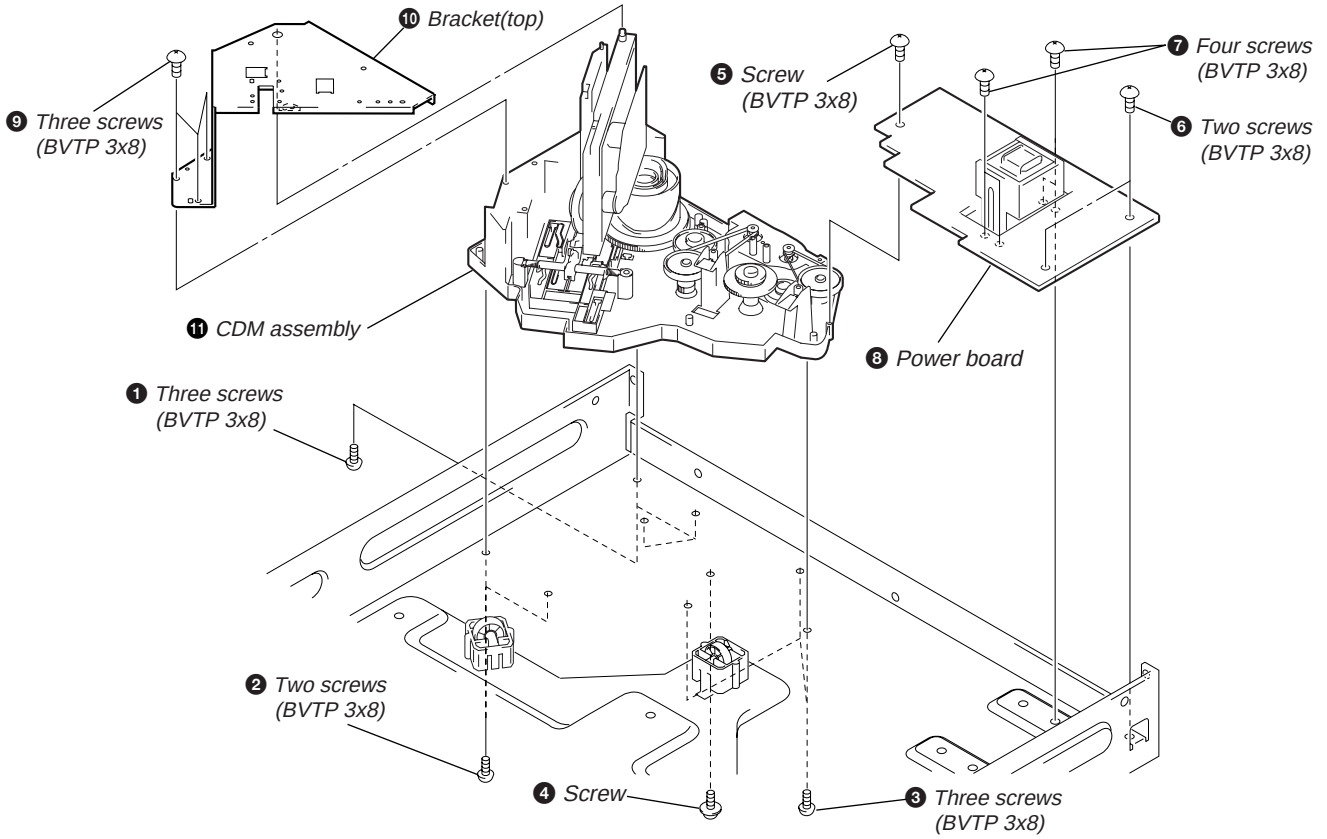
3-4. POP-UP ASSEMBLY



3-5. BACK PANEL ASSEMBLY



3-6. CDM ASSEMBLY


10 Bracket(top)
9 Three screws (BVTP 3x8)
5 Screw (BVTP 3x8)
7 Four screws (BVTP 3x8)
6 Two screws (BVTP 3x8)
11 CDM assembly
8 Power board
1 Three screws (BVTP 3x8)
2 Two screws (BVTP 3x8)
4 Screw
3 Three screws (BVTP 3x8)

SECTION 4
SERVICE MODE

SPECIAL FUNCTION

This unit is provided with several service modes.
Details are shown in the following table.

Mode name	Power supply state	Button operation	Remarks
ALL ERASE	OFF	CLEAR + ①	Note 1
AGING MODE	ON	GROUP 1 + ≙ OPEN/CLOSE + +100	
LOARDING AGING MODE	ON	GROUP 2 + ≙ OPEN/CLOSE + +100	
TABLE AGING MODE	ON	GROUP 3 + ≙ OPEN/CLOSE + +100	
DOOR POP UP AGING MODE	ON	GROUP 4 + ≙ OPEN/CLOSE + +100	
TABLE LOTATION MODE	ON	GROUP 5 + ≙ OPEN/CLOSE + +100	Used in adjustment
TITLE MEMO SHIFT MODE	ON	GROUP 7 + ≙ OPEN/CLOSE + +100	
MODEL NAME DISPLAY	ON	GROUP 1 + ▷ + +100	
MICROPROCESSOR VERSION DISPLAY	ON	GROUP 2 + ▷ + +100	
ALL LIT MODE	ON	GROUP 3 + ▷ + +100	
MECHANISM ADJUSTMENT MODE	ON	GROUP 4 + ▷ + +100	
SHIPMENT MODE	ON	GROUP 5 + ▷ + +100	Note 1
TITLE MEMO RECORDING CHECK MODE	ON	GROUP 6 + ▷ + +100	Note 1

Note 1
Do not execute unless with a proper reason, otherwise the memory of the title memo recorded by the customer will be erased.
The title memo recording check mode is not required for servicing. Do not execute.

ALL ERASE

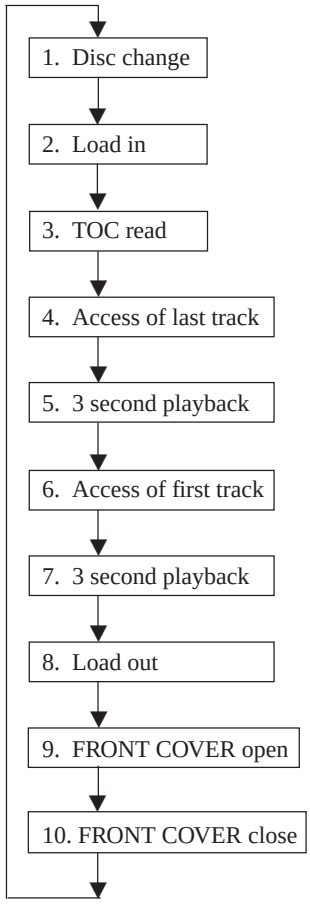
This mode is used for clearing information such as the title memo. Do not execute if information such as the title memo is not to be erased.

Procedure:
While pressing the CLEAR button with the power OFF, press the I/⏻ button and turn on the power.
The fluorescent display tube displays “ALL ERASE” and all memories will be cleared.

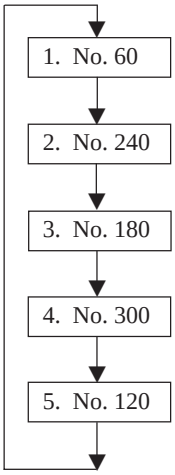
AGING MODE

- Mode which repeatedly changes and plays back discs automatically in the unit.
- It will repeat aging as long as no errors occur.
- If an error occurs during aging, it will stop all servos, motors, etc. instantaneously, display the error number, and stop operations. However, the stopping conditions differ according to whether the unit is equipped with the “self-protection function during errors” described later.
  The function serves to maintain the state of the unit when errors occur.

Sequence of Aging Mode



Order of Disc Change
(1 cycle takes 3 minutes)



Special Aging Mode Functions

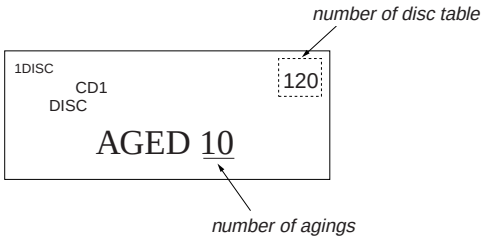
The aging mode is provided with the following convenient functions

- Disc setting mode (*1)
- Selection of presence of protection function during error (*2)
- Count function of aging cycle (*3)

*1 Disc setting mode:
5 discs are set before setting the aging mode. This mode makes the setting of these discs more easy.

*2 Self protection function during errors:
Function which voluntarily corrects errors which occur during normal operations by retries.
If this function is not provided, all operations will be stopped without retiring. It is suitable for checking errors with low reproducibility.
If this function is provided, and errors can be corrected by retries, aging will be continued without stopping.

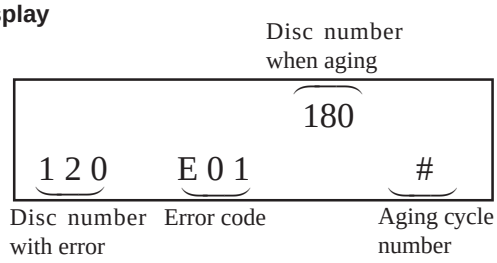
*3 Aging cycle count function:
Functions which displays the number of agings carried out on the Fluorescent indicator tube in numbers. One aging cycle consists of five discs.



Aging Procedure

1. Turn ON the power of the unit. Press the [≙ OPEN/CLOSE] and open the front cover.
2. Change the [COMMAND MODE] switch (S901) on set to [CD1].
3. Press the [AGING START] button of the remote commander for aging mode (J-2501-123-A).
4. When the disc set mode is set, the [▷] and [▮▮] LEDs blink.
5. Rotate the [DISC/CHARACTER] dial. The slits (No. 60, 120, 180, 240, 300) for setting the discs will come forward. Insert the discs into these slits. Do not set the discs in other slits.
6. Set whether the self-protection function during errors is equipped with the unit. Press the [REPEAT] button. If "REPEAT" is displayed on the Fluorescent indicator tube, it means the function is provided. If "REPEAT" is not displayed, it means the function is not provided.

Error Display



7. Press the [▷] button.
8. The [▷] LED blinks, the aging mode is set, and aging is started.
9. The aging cycle lasts 3 minutes. If errors occur during aging, the error number will be displayed on the Fluorescent indicator tube. (Refer to the following table for the details of the errors.)
10. Aging will be repeated as long as no errors occur.
11. After each aging cycle, the number displayed on the Fluorescent indicator tube will increase.
12. To end aging, disconnect the power cord from the outlet.

NOTE: As an alternative to steps 2 and 3, press the [GROUP 1] button, [≙OPEN/CLOSE] button, and [+100] button at the same time.

Error code

Code number	Name	Contents
Err 01	DISC sensor check 1	No disc in the specified slit
Err 02	DISC sensor check 2	Disc in other slits
Err 03	Table operation check 1	Table motor current over
Err 04	Table operation check 2	No table sensor input
Err 05	Loading operation check 1	Load in timeover
Err 06	Loading operation check 2	Load out timeover
Err *1	BU related check 1	Access timeover
Err *2	BU related check 2	High speed search NG
Err *3	BU related check 3	Q data read error
Err *4	BU related check 4	BU operation (from focus search to until signal can be read) timeover
Err *5	BU related check 5	GFS monitor error
Err *6	BU related check 6	Focus cannot be imposed by focus search
Err *7	BU related check 7	Auto focus bias adjustment cannot be performed

The * numbers mean the following according to the state of the unit during aging
2 : From chucking to end of TOC read
3 : From end of TOC read to end of last track playback
4 : From end of last track playback to end of first track playback

LOADING AGING MODE

- This mode is used for repeating loading operations continuously.
- Aging will be performed continuously unless an error occurs.
- When an error occurs, the error code will be displayed on the fluorescent indicator tube.

Procedure:

1. Set a disc in the DISC 1 slit.
2. With the power ON, while pressing the GROUP 2 button and ⏏ OPEN/CLOSE button, press the +100 button.
3. When the mode is set, both the ▷ and ▮▮ indicators will start to blink.
4. When the ▷ button is pressed, only the ▷ indicator will blink and aging starts.
5. To end the mode, press the I/⏻ button or disconnect the power cord from the outlet.

The error codes displayed during operations and when errors occur are the same as the **"AGING MODE"** described earlier.

TABLE AGING MODE

- This mode is used for rotating the table randomly.
- Aging will be performed continuously unless an error occurs.
- When an error occurs, the error code will be displayed on the fluorescent indicator tube.

Procedure:

1. Set discs in slits 1, 2, 99, 100, and 200.
2. With the power ON, while pressing the GROUP 3 button and ⏏ OPEN/CLOSE button, press the +100 button.
3. When the mode is set, both the ▷ and ▮▮ indicators will start to blink.
4. When the ▷ button is pressed, only the ▷ indicator will blink and aging starts.
5. To end the mode, press the I/⏻ button or disconnect the power cord from the outlet.

During aging, operations will be carried out sequentially in the order of No. 1, No. 2, No. 100, No. 99, and No. 200 slits.

The error codes displayed during operations and when errors occur are the same as the **"AGING MODE"** described earlier.

DOOR POP UP AGING MODE

- This mode is used for performing aging of the CD pop up part and door open/close.
  It is used for checking if operations are performed normally.

Method:

1. To select a slot to be aged, press the ⏏ OPEN/CLOSE button and rotate the DISC/CHARACTER knob with the front door opened to select a number.
2. With the power ON, while pressing the GROUP 4 button and ⏏ OPEN/CLOSE button, press the +100 button.
3. When the ▷ button is pressed, aging starts, and door open/close and up/down operations of the pop up part are performed continuously.
4. To end the mode, press the I/⏻ button.

If DISC is not selected at step 1, aging will be performed at the 192 slot.
The number of times aging is performed will be displayed on the fluorescent indicator tube during operations.

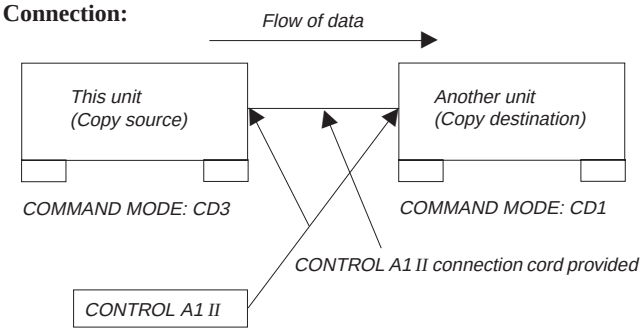
TABLE ROTATION MODE

- This mode is used for electrical adjustments. Refer to the section on Electrical Adjustments.

TITLE MEMO SHIFT MODE

- This mode is used for writing title memo information recorded in this unit in a different unit.
  Use it for transferring disc memo contents written by the customer to the new units when replacing the unit, etc.

Connection:



Procedure:

1. Connect two units using the CONTROL A1 II connection cord shown in the figure.
2. Set the COMMAND MODE switch of the copy source unit to CD3 and the COMMAND MODE switch of the copy destination unit to CD1.
3. With the power on, while pressing the GROUP 7 button and ⏏ OPEN/CLOSE button of the copy destination unit, press the +100 button.
4. When the data has been transferred, the fluorescent indicator tube displays "complete" for about 1 second.

MODEL NAME DISPLAY

- Model names can be displayed on the fluorescent indicator tube for checking the microprocessor model setting, etc.

Procedure:

With the power ON, while pressing the GROUP 1 and ▷ buttons, press the +100 button.
The model name is displayed on the fluorescent indicator tube.

MICROPROCESSOR VERSION DISPLAY

- The microprocessor version can be displayed on the fluorescent indicator tube.

Procedure:

With the power ON, while pressing the GROUP 2 and ▷ buttons, press the +100 button.
The microprocessor version is displayed on the fluorescent indicator tube.

ALL LIT MODE

- This mode is used for lighting the whole fluorescent indicator tubes and LEDs.

Procedure:

With the power ON, while pressing the GROUP 3 and ▷ buttons, press the +100 button.
Both the fluorescent indicator tubes and LEDs will light up completely.
To end this mode, press the I/⏻ mode.

MECHANISM ADJUSTMENT MODE

- This mode is used for mechanism adjustments. Refer to the section on Mechanism Adjustments.

SHIPMENT MODE

- This mode is used for setting the unit to the shipment state. Do not execute it without a proper reason as it erases the memory of the title memo recorded by the customer.

Procedure:

Set the [COMMAND MODE] switch to [CD1] and the [TIMER] switch to [OFF]. Next, with the power ON, while pressing the [GROUP 5] button and [▷] button, press the [+100] button. If the switch state is normal, the model name will be displayed on the fluorescent indicator tube and the unit will set into the shipment mode.

If the various switches are not set to their designated positions, error codes will be displayed on the fluorescent indicator tube.

TITLE MEMO RECORDING CHECK MODE

This mode is not required for servicing. Do not execute without a proper reason.

If executed, the memory of the title memo recorded by the customer will be erased.

SECTION 5
TEST MODE

5-1. ADJ MODE

1. Turn ON the power of the unit, set disc to disc table, and perform chucking.
2. Disconnect the power supply plug from the outlet.
3. To set ADJ mode, connect the test point (ADJ) of the MAIN board to Ground, and connect the power supply plug to the outlet.

In this mode, table rotation and loading operations are not performed because it is taken that the disc has already been chucked.

Note: The same operations are also performed in the following when the test point (ADJ) is connected to Ground after turning on the power.

- Direct search (movement of sledding motor) is not performed during accessing
- Ignored even when GFS becomes L
- Ignored even when the Q data cannot be read
- Focus gain does not decrease

ADJ Mode Special Functions Table
(The buttons shown with ( ) function by using the supplied remote commander only)

Button	Function
CONTINUE	Servo average display Displays VC, FE, RF, TE and traverse in hexadecimal numbers
SHUFFLE	Focus bias display Each time this is pressed, the focus bias is switched between 1 and 2 (1) Bias actually set Optimum bias Minimum jitter (2) U:Upper aliasing bias L:Lower aliasing bias
PROGRAM	Auto gain display Displays focus, tracking, sledding in hexadecimal numbers
GROUP 3 (3)	Turns off the tracking and sledding servo
GROUP 8 (8)	Turns on the tracking and sledding servo
CHECK	S-curve observation mode. (Exits this mode when the I/⏻ button is pressed.)

5-2. KEY AND DISPLAY CHECK MODE

To set this mode, connect the test point (AFADJ) on the MAIN board to Ground, and connect the power supply plug to the outlet.

Note: When this mode is executed, all title memos recorded will be erased.

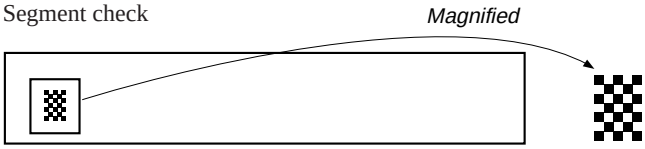
- When this button is pressed, "line # No. #" will be displayed. However, these will not be displayed for the following special buttons. However, these will not be displayed for the following special buttons.

■ (stop) button: FL segment check
(Refer to FL Tube Check Patterns)
❚❚ (pause) button: FL grid check
(Refer to FL Tube Check Patterns)
The ❚❚ LED also lights up simultaneously.
▷ (play) button: All FL segment and grid will light up.
▷ LED also lights up simultaneously.
TIMER switch: When the switch position is PLAY, the STANDBY LED lights up. It goes OFF when set to OFF.

Each time this button is pressed, the value of the "Go+ ## keys" increases. Buttons pressed once will not be counted when pressed again.

FL Tube Check Patterns

Segment check

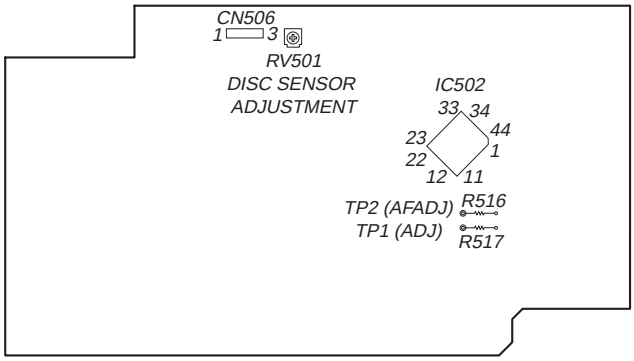


Grid check

- When the jog dial is rotated to the right, the GROUP LEDs light up in the order of 1→2..8→HIT LIST→EASY PLAY→MEGA CONTROL→1.
- When the jog dial is rotated to the left, the GROUP LEDs light up in the order of 8→ 7..1→ MEGA CONTROL→ EASY PLAY→HIT LIST→8.

• Abbreviation
FL: Fluorescent Indicator Tube

[MAIN BOARD] – Component Side –



SECTION 6
ADJUSTMENTS

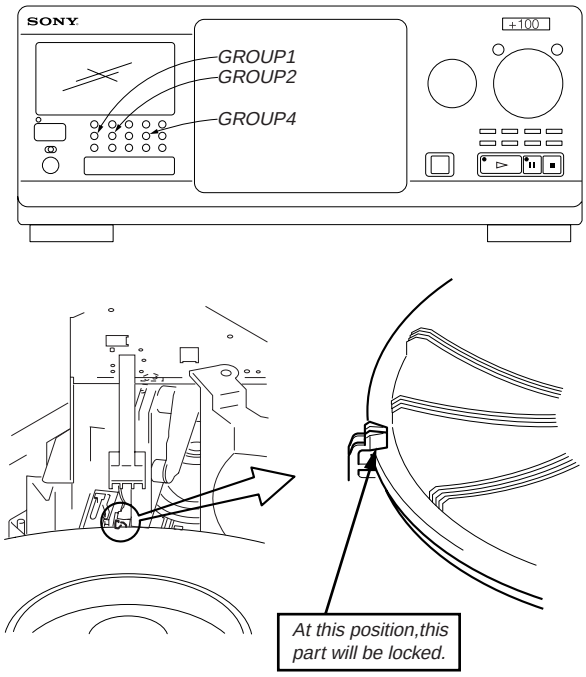
6-1. MECHANICAL ADJUSTMENTS

Pop Up Mechanism Adjustment

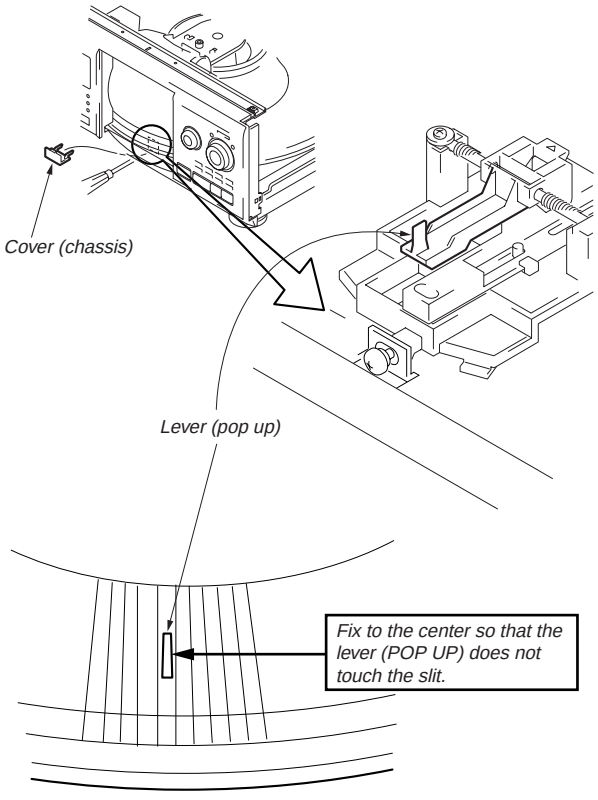
1. With the power ON, while pressing the GROUP 4 and ▷ buttons, press the +100 button to enter the mechanism adjustment mode.
2. Press the GROUP 1 button to operate the loading mechanism, and continue pressing until the disc table locks. (Fig-1)
3. Press the GROUP 2 button to raise the pop up part.
4. Remove the cover (chassis), loosen the adjusting screw, move the screwdriver left and right until the lever (POP UP) does not touch the slit wall, and secure the screw. (Fig-2)

The following buttons have special functions in this mode.

GROUP 1 button: Loading mechanism IN operation
GROUP 5 button: Loading mechanism OUT operation
GROUP 2 button: Pop up part UP operation
GROUP 6 button: Pop up part DOWN operation



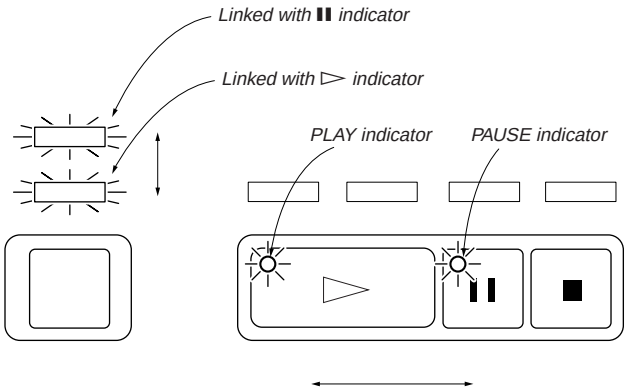
Flg-1

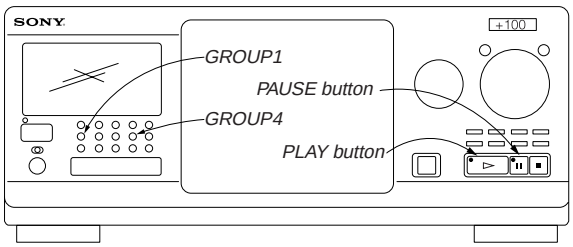


Flg-2

Sensor Adjustment

1. With the power ON, while pressing the GROUP 4 and ▷ buttons, press the +100 button to enter the mechanism adjustment mode.
2. Press the GROUP 1 button to operate the loading mechanism, and continue pressing until the disc table locks. (Fig-3)
3. Loosen the fixing screw, move the holder (TABLE SENSOR) slightly, and when the LED (green) of the PLAY button switches to the LED (orange) of the PAUSE button (or vice versa), secure the holder (TABLE SENSOR). (Fig-4)
4. Moving the disc table right and left with a hand after the screw is fixed, the table will move by the play of a disc table. If the LEDs light up alternately, the adjustment will be performed correctly. (Fig-4)





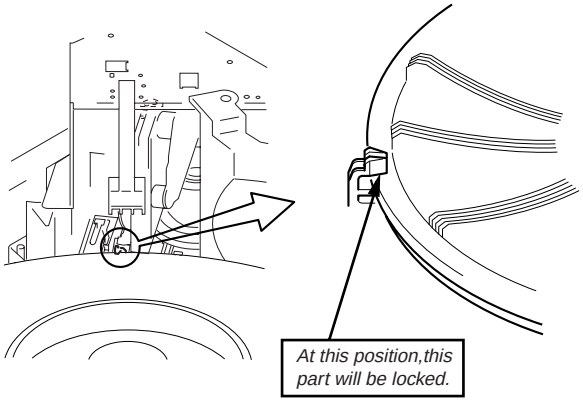


FIg-3

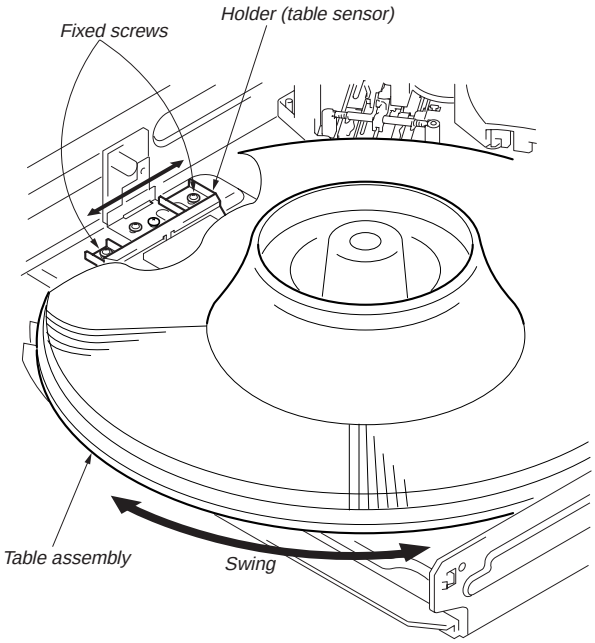


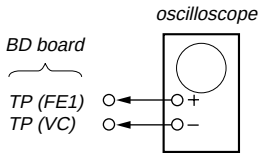
FIg-4

6-2. ELECTRICAL ADJUSTMENT

Note:

1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10MΩ impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

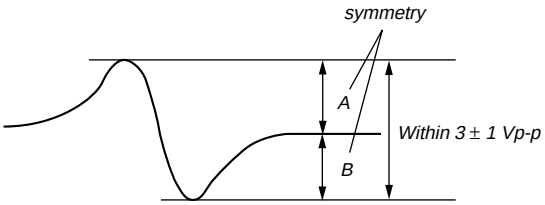
S-Curve Check



Procedure :

1. Chuck the disc (YEDS-18) beforehand, and disconnect the power cord from the outlet.
2. Connect oscilloscope to test point TP (FE1) on BD board.
3. Connect test point TP1 (ADJ) on MAIN board to ground with lead wire.
4. The ADJ mode is set when the power cord is inserted into the outlet and power is supplied.
5. The fifth track is played automatically.
6. Press the CHECK button.
7. Check the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 3±1 Vp-p.

S-curve waveform

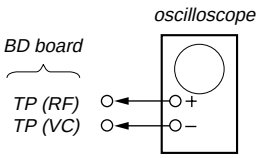


8. Pressing the I/⏻ button stops the output of the waveform (s curve).
9. After check, remove the lead wire connected in step 3.

Note : • Try to measure several times to make sure than the ratio of A : B or B : A is more than 10 : 7.
• Take sweep time as long as possible and light up the brightness to obtain best waveform.

Adjustment Location: BD board

RF Level Check

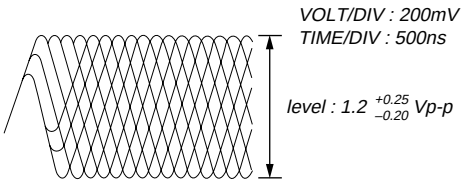


Procedure :

1. Connect oscilloscope to test point TP (RF) on BD board.
2. Turn Power switch on.
3. Put disc (YEDS-18) in to play the number five track.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

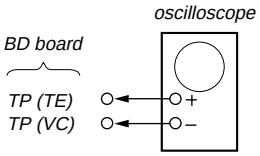
Note: A clear RF signal waveform means that the shape "◊" can be clearly distinguished at the center of the waveform.

RF signal waveform



Adjustment Location: BD board

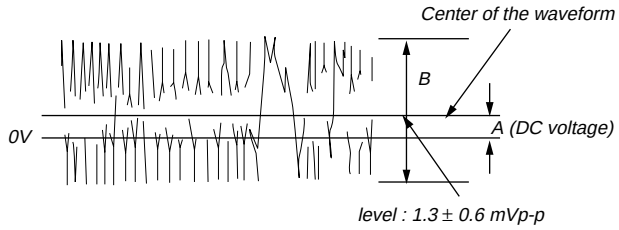
E-F Balance Check



Procedure :

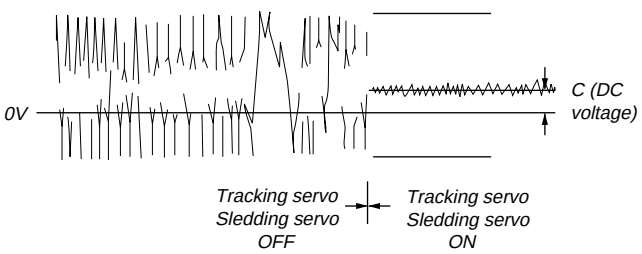
1. Chuck the disc (YEDS-18) beforehand, and disconnect the power cord from the outlet.
2. Connect oscilloscpe to test point TP (TE) on BD board.
3. Connect test point TP1 (ADJ) on MAIN board to ground with lead wire.
4. The ADJ mode is set when the power cord is inserted into the outlet and power is supplied.
5. The fifth track is played automatically.
6. Press the GROUP 3 button. (The tracking servo and the sledding servo are turned OFF.)
7. Check the level B of the oscilliscope's waveform and the A (DC voltage) of the center of the Traverse waveform.
   Confirm the following :
   A/B x 100 = less than ± 22%

Traverse waveform



8. Press the GROUP 8 button. (The tracking servo and sledding servo are turned ON.) Confirm the C (DC voltage) is almost equal to the A (DC voltage) is step 7.

Traverse waveform



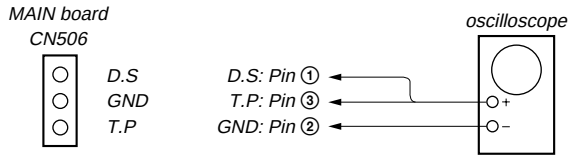
9. Disconnect the lead wire of TP1 (ADJ) connected in step 2.

Adjustment Location: MAIN board

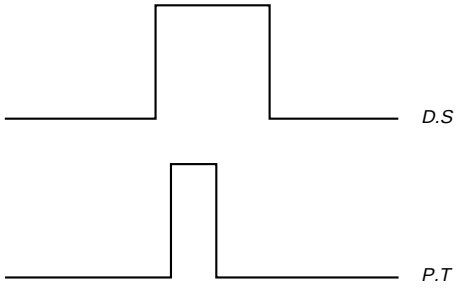
Disc Sensor Adjustment

Be sure to perform this adjustment after sensor adjustment in MECHANICAL ADJUSTMENT.

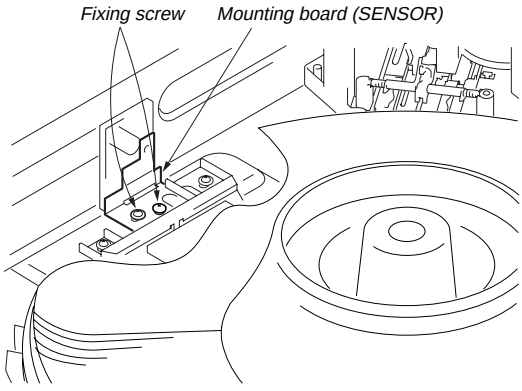
Connection:

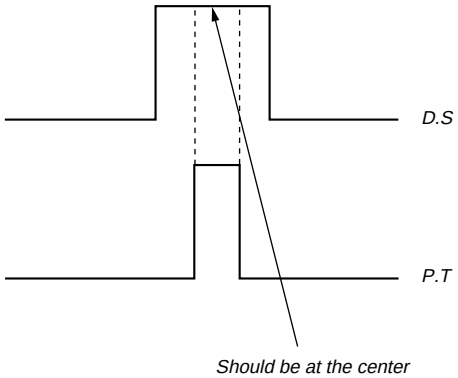


Waveform:

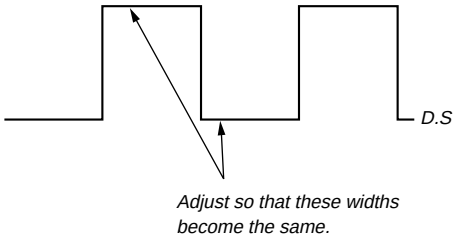


1. Connect the oscilloscope to Pins ①, ②, and ③ of CN506 of the MAIN board.
2. Check that no discs are loaded in the unit.
3. With the power ON, while pressing the GROUP 5 and ≙ OPEN/CLOSE buttons, press the +100 button. The disc table starts to rotate in the clockwise direction.
4. Loosen the fixing screw, move the mounting board (SENSOR), and secure the mounting board (SENSOR) at the point the H portion of the P.T waveform comes the center of the H portion of the D.S waveform.





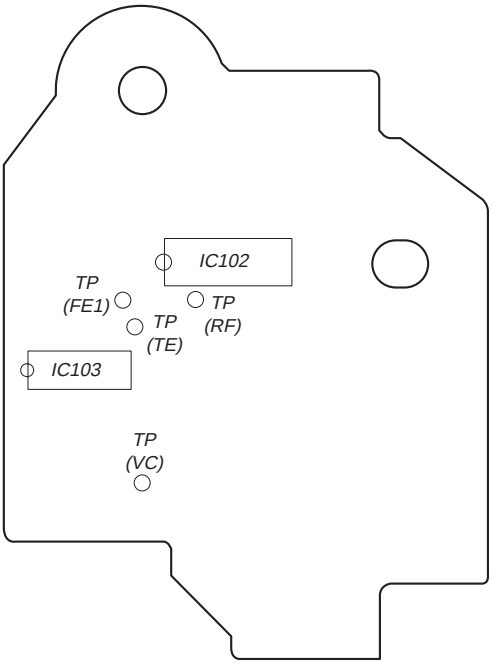
5. Rotate the DISC/CHARACTER knob in the counterclockwise direction and the disc table starts to rotate in the same direction. Check that the waveform at this time is the same as that in step 4. If larger by a considerable extent, rotate the DISC/CHARACTER knob in the clockwise direction and the disc table starts to rotate in the same direction. Repeat from step 4.
6. Rotate RV501 of the MAIN board and adjust so that the H and L portions of the D.S waveform become the same.



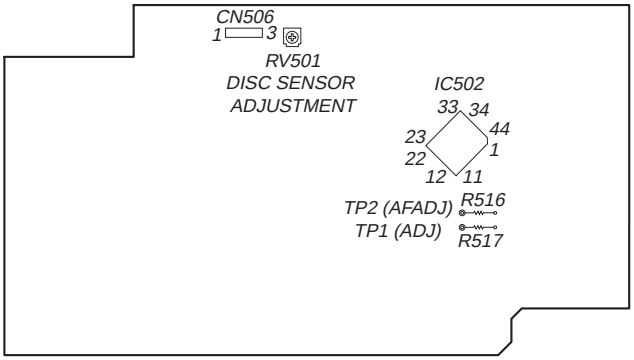
Adjustment Location: MAIN board

Adjustment Location :

[BD BOARD] – Side B –

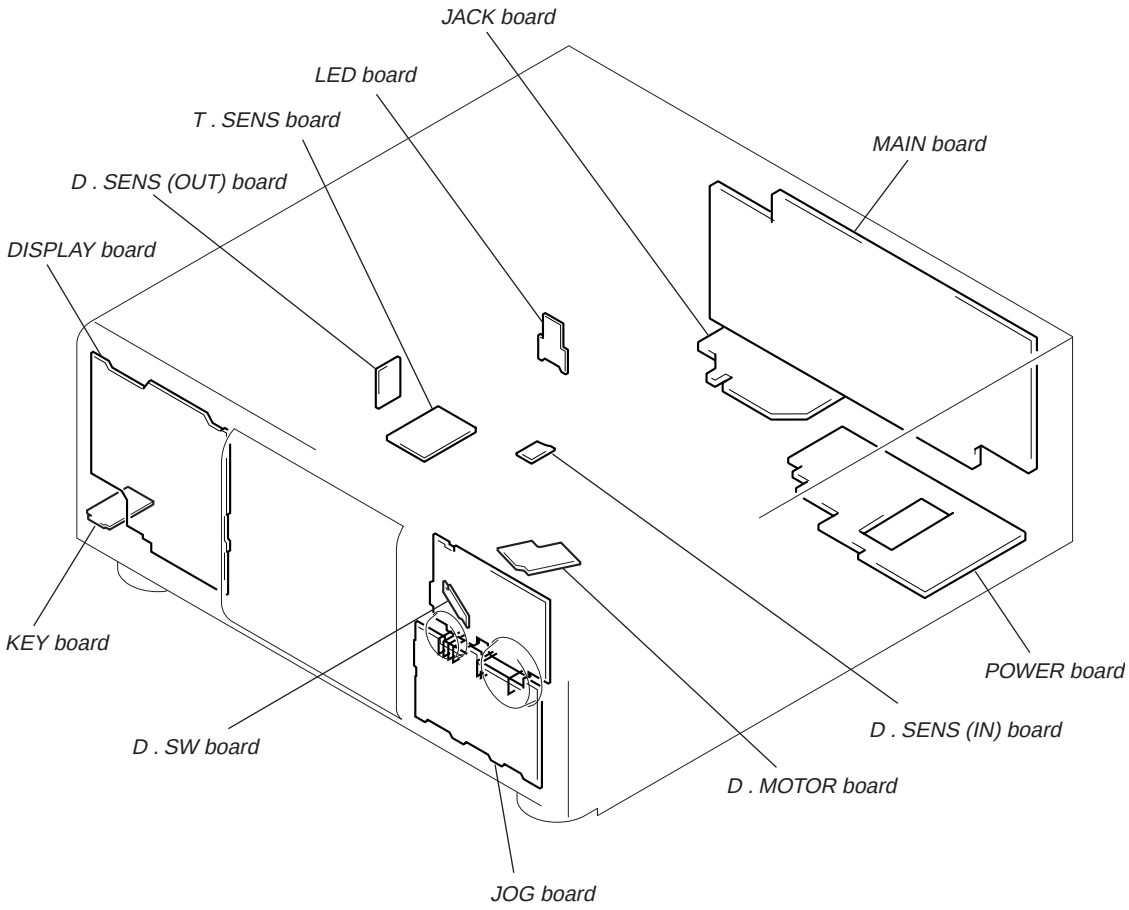


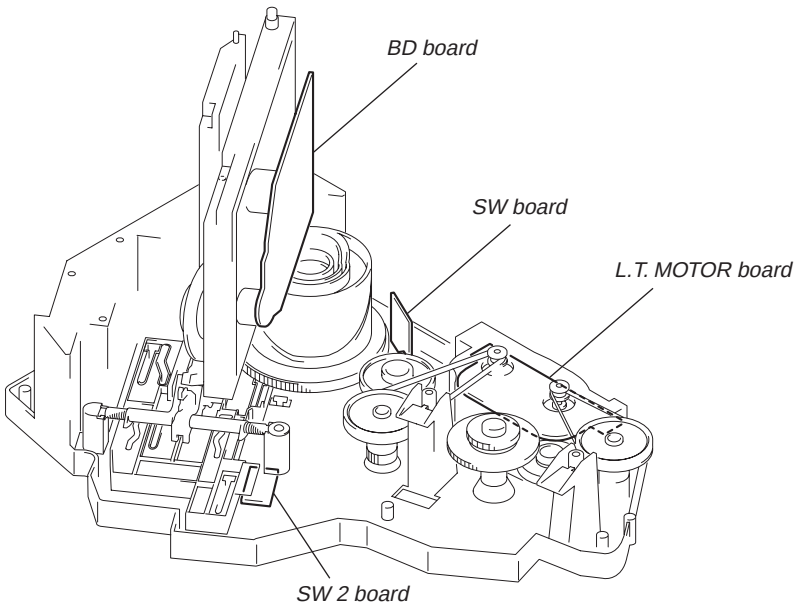
[MAIN BOARD] – Component Side –



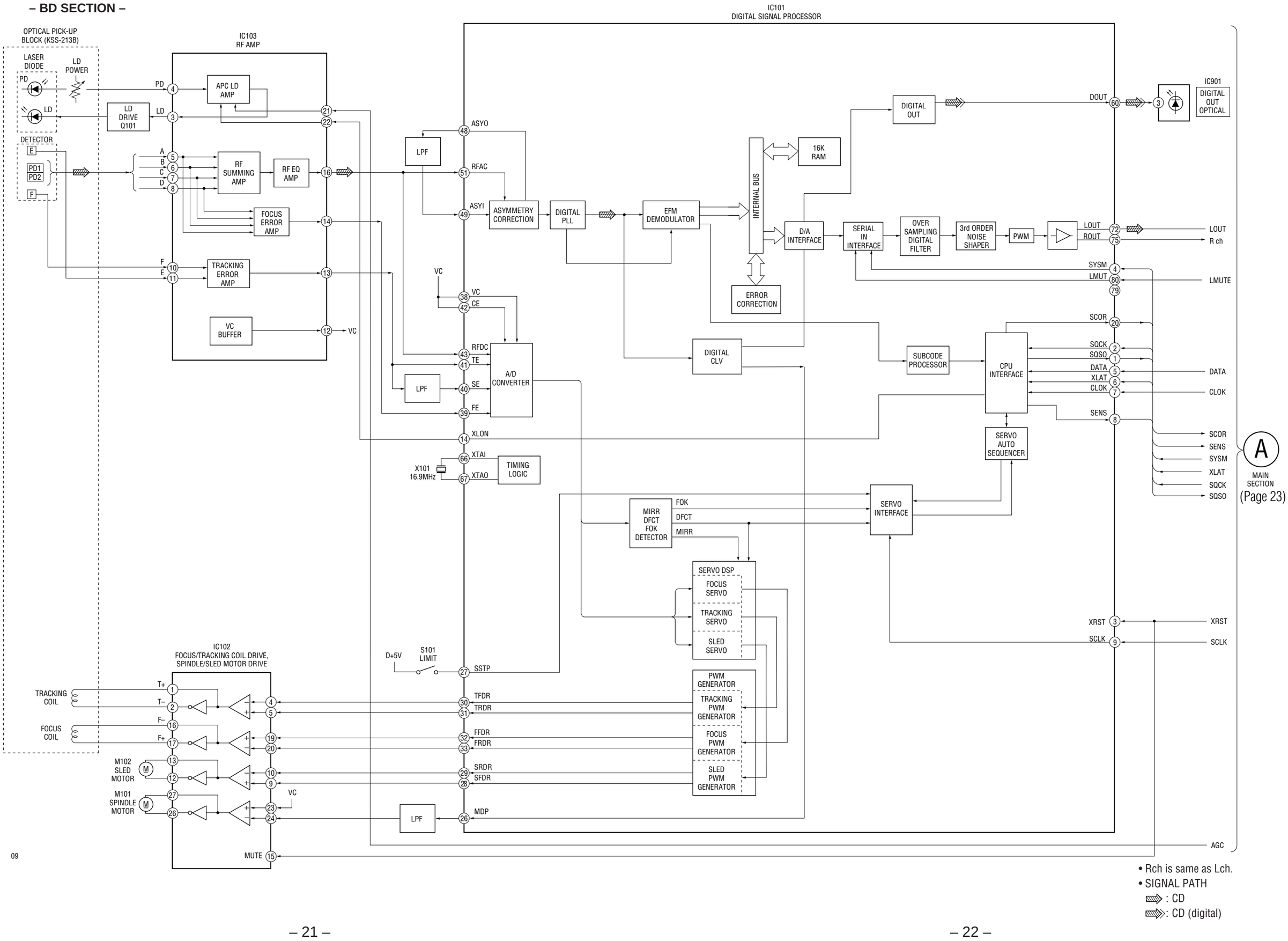
SECTION 7
DIAGRAMS

7-1. CIRCUIT BOARDS LOCATION

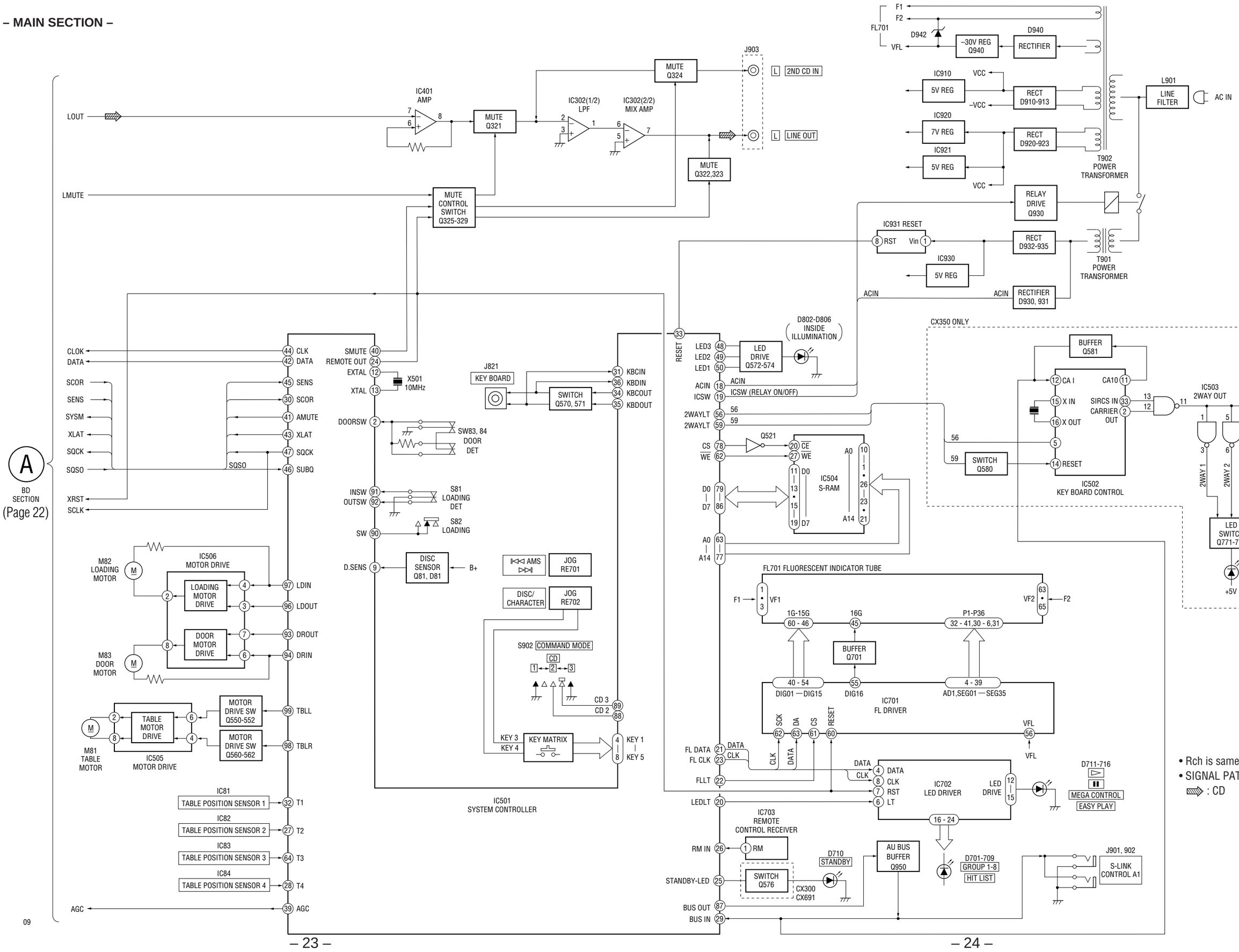




7-2. BLOCK DIAGRAMS
– BD SECTION –



– MAIN SECTION –



THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

For schematic diagrams.

Note:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

- B+ : B+ Line.
- B– : B– Line.
- ▭ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : STOP
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : CD
  ⇨ : digital out
- Abbreviation
  CND : Canadian model
  AUS : Australian model

For printed wiring boards.

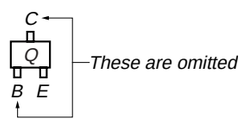
Note:

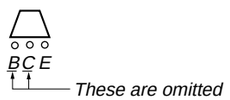
- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ○ : Through hole.
- ▒ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Side B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A)	Parts on the parts face side seen from the parts face are indicated.

- **Indication of transistor**





WAVEFORMS

① 3.1Vp-p
16.9MHz
IC101 ⑰ XTAI

② 1.2Vp-p
(PLAY)
IC101 ⑤① RF AC

③ 2.5V
APPROX 500mVp-p (PLAY)
IC101 ④① TE

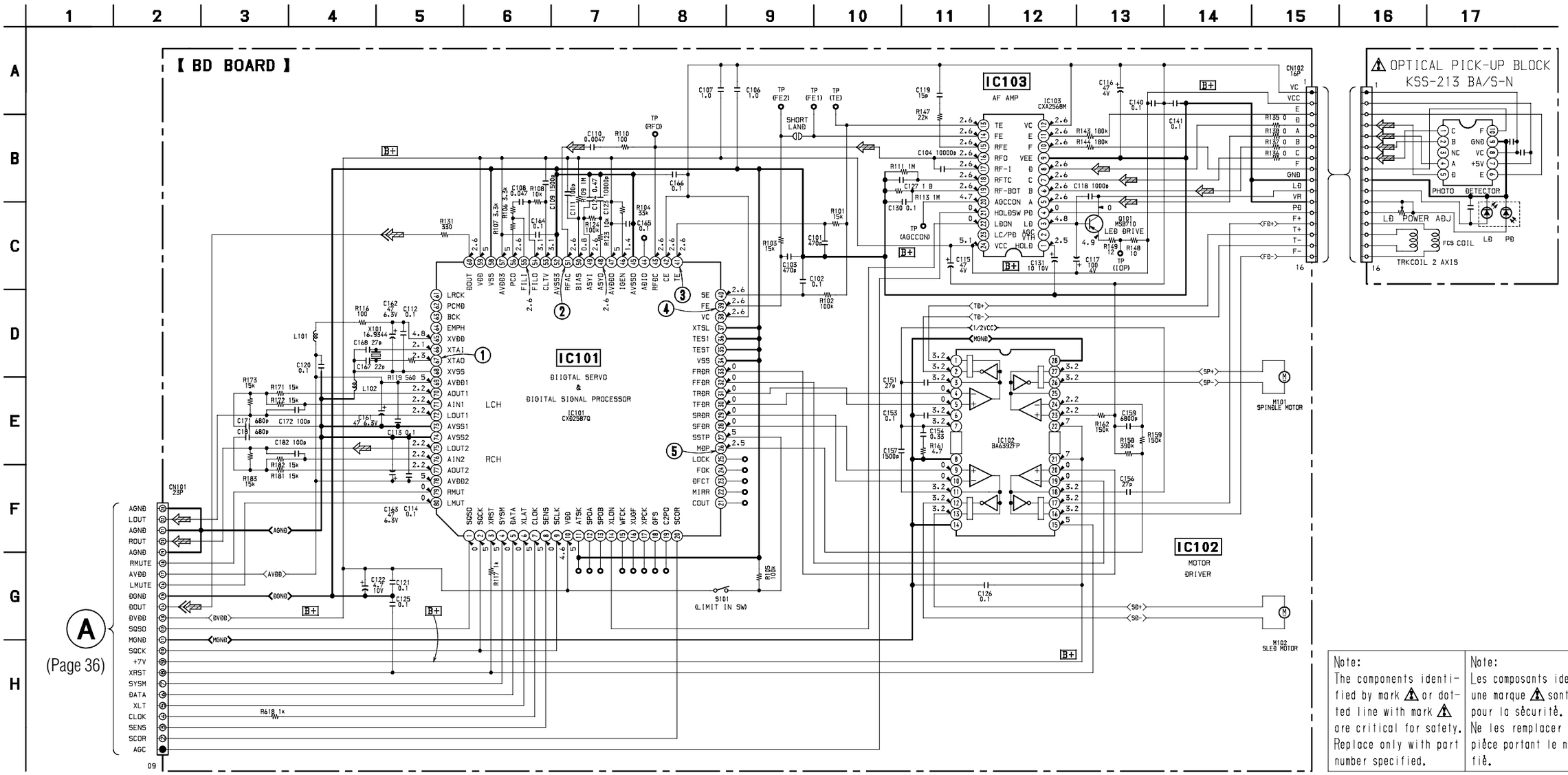
④ 2.5V
APPROX 200m Vp-p (PLAY)
IC101 ③⑨ FE

⑤ 2.4Vp-p
7.5µsec
IC101 ②⑥ MDP

⑥ 3.8Vp-p
10MHz
IC501 ⑫ EXTAL

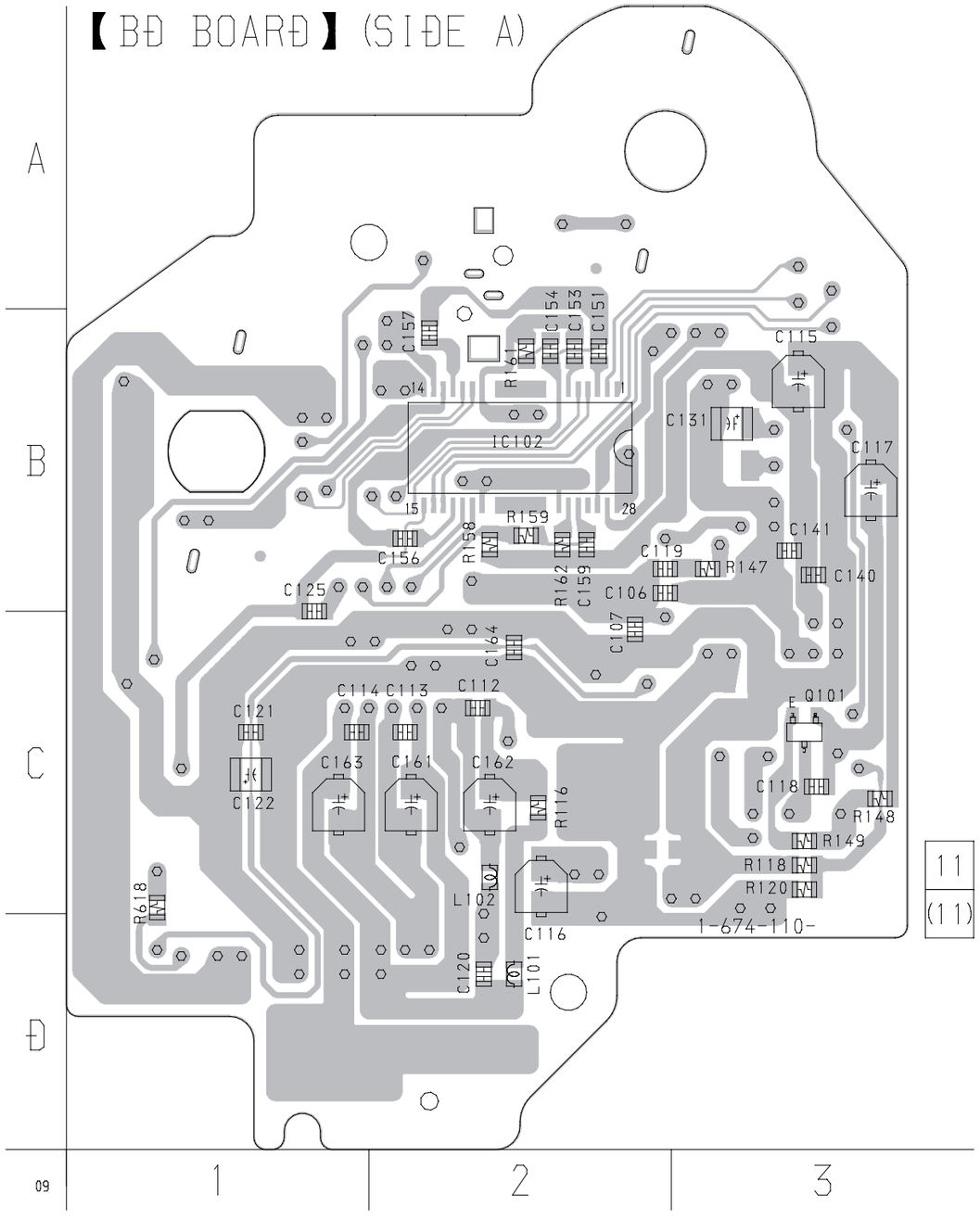
7-3. SCHEMATIC DIAGRAM – BD SECTION –

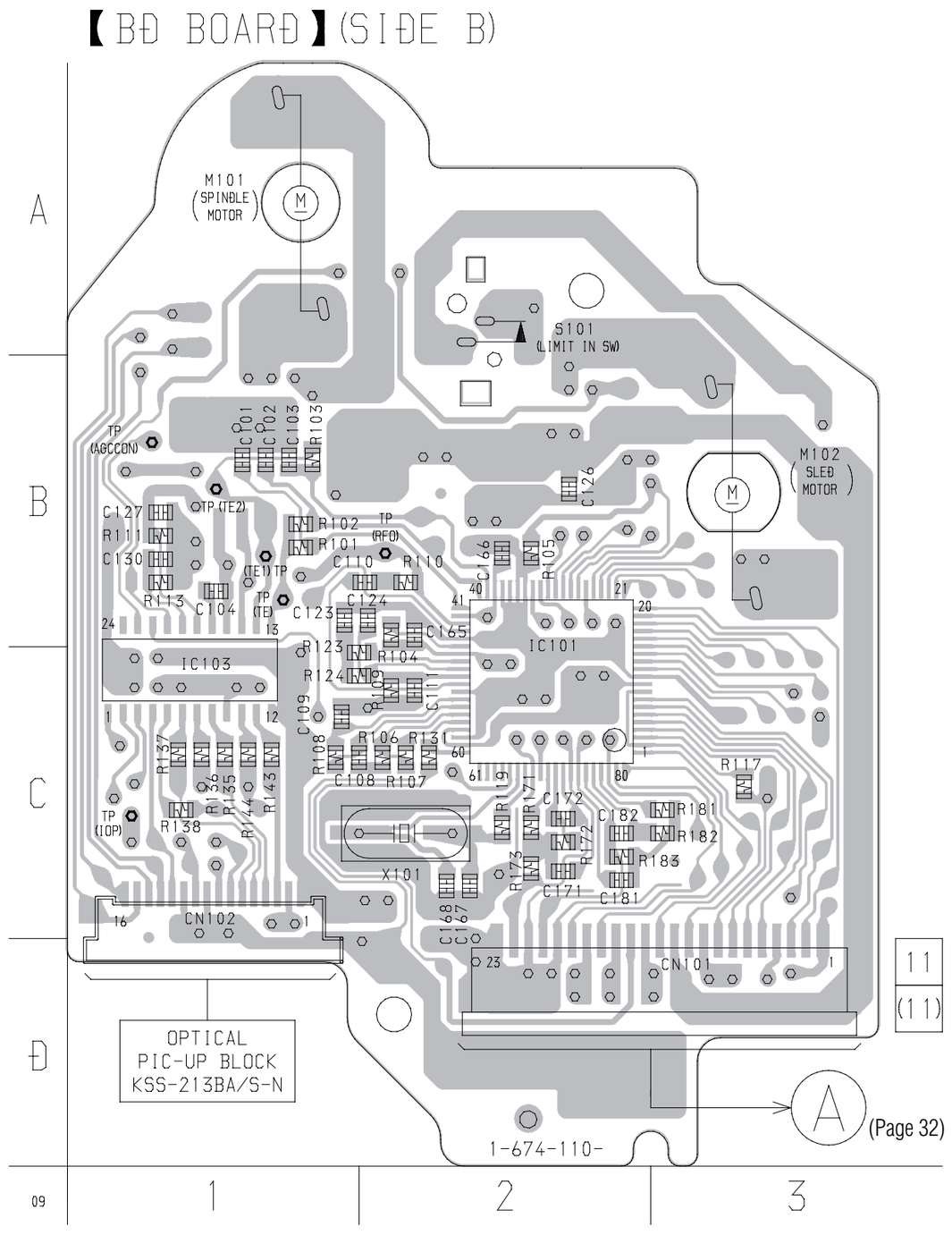
- See page 26 for Waveforms.
- See page 53, 54 for IC Block Diagrams.
- See page 56 for IC Pin Functions.


【 BD BOARD 】
IC101
DIGITAL SERVO & DIGITAL SIGNAL PROCESSOR
IC101 CXD2587Q
IC103
AF AMP
IC103 CXA2568M
IC102
BA6392FP
IC102
MOTOR DRIVER
OPTICAL PICK-UP BLOCK
KSS-213 BA/S-N
PHOTO DETECTOR
LD POWER ADJ
FCS COIL
TRK COIL 2 AXIS
M101 SPINDLE MOTOR
M102 SLED MOTOR
S101 (LIMIT IN SW)
LCH
RCH
(Page 36)
Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.
Note: Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

7-4. PRINTED WIRING BOARD – BD SECTION –

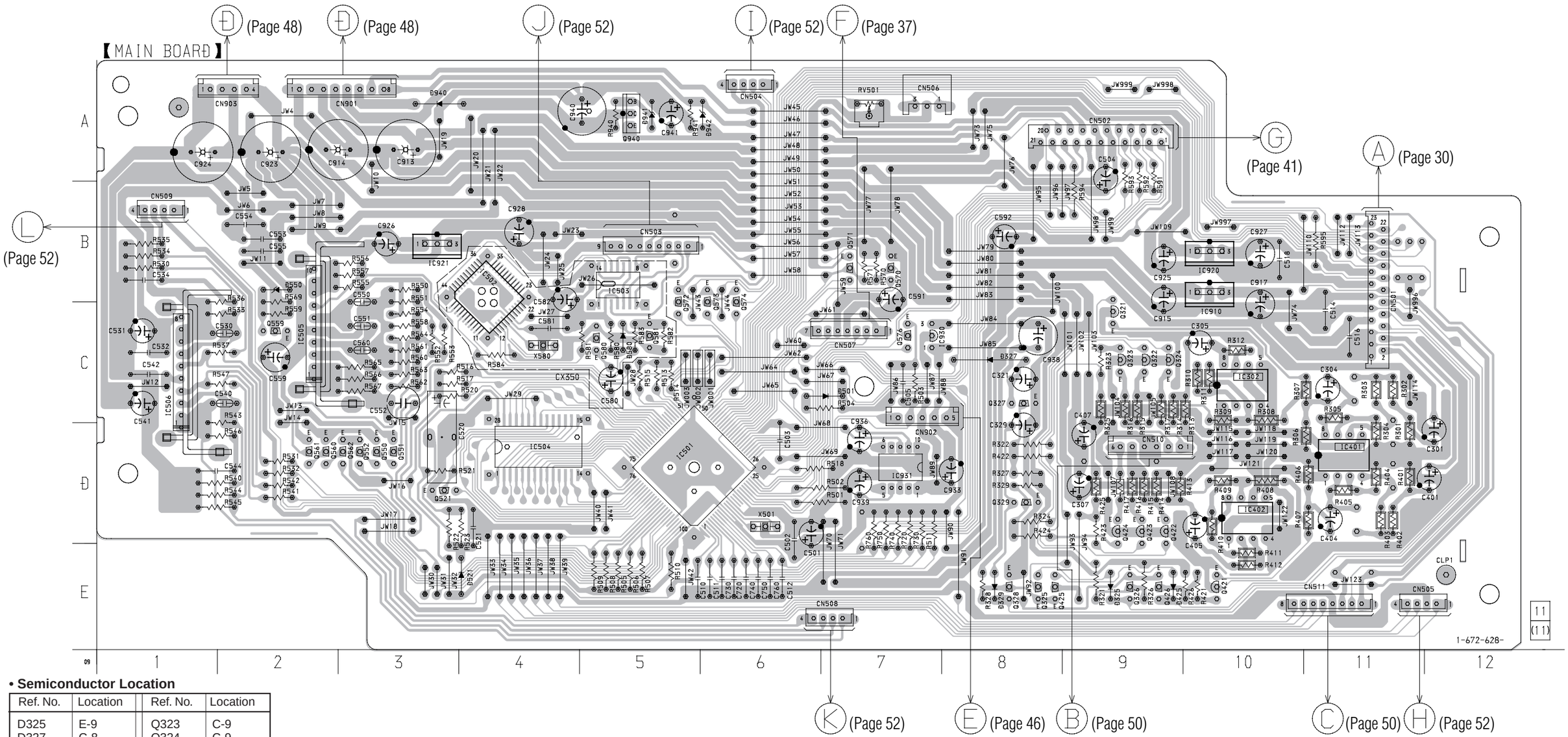
• See page 20 for Circuit Boards Location.





7-5. PRINTED WIRING BOARD – MAIN SECTION –

• See page 20 for Circuit Boards Location.

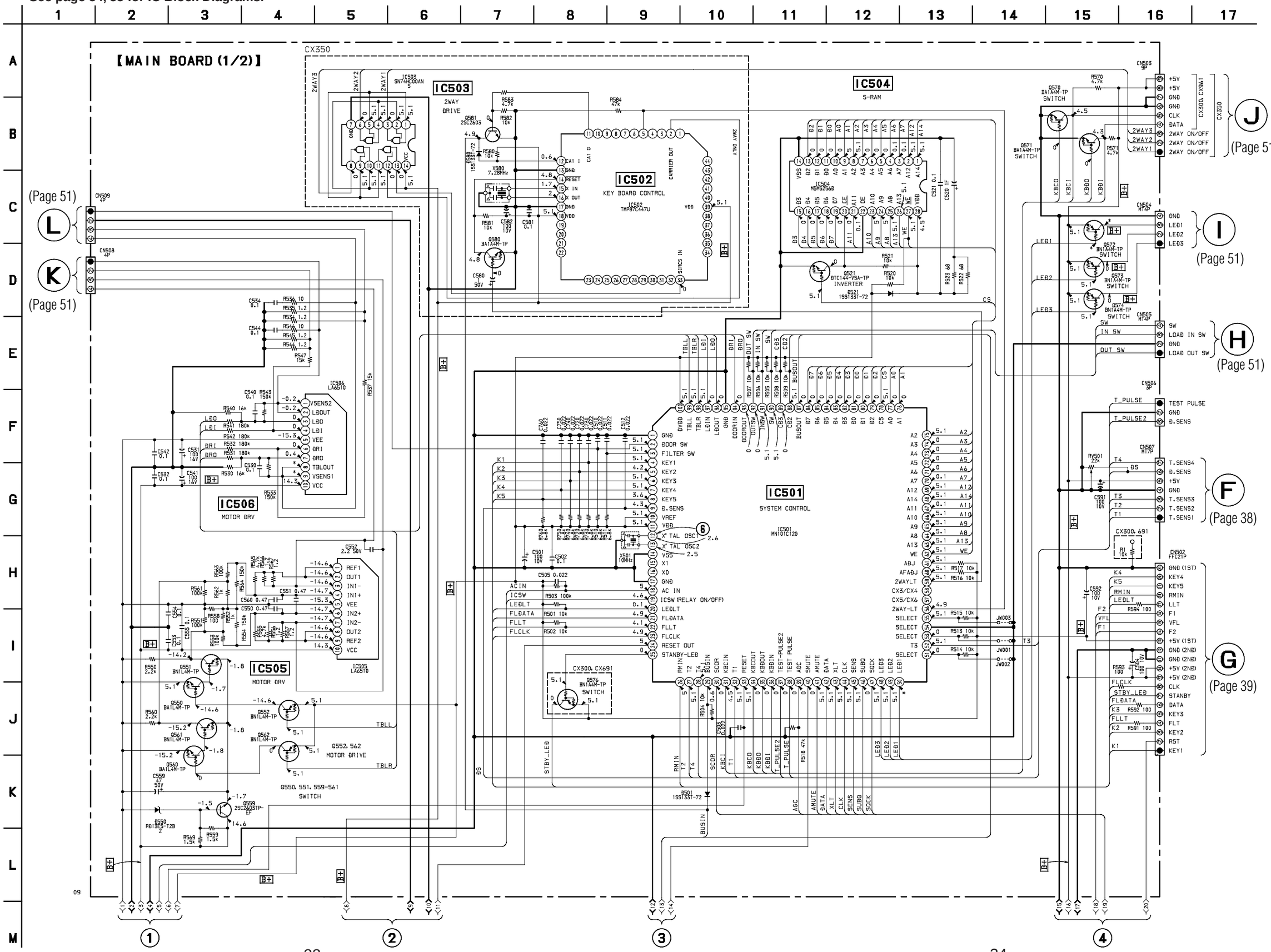


• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D325	E-9	Q323	C-9
D327	C-8	Q324	C-9
D329	E-8	Q325	E-8
D425	E-9	Q326	E-9
D501	C-7	Q326	E-9
D521	E-4	Q327	C-8
D550	B-2	Q421	E-10
D580	C-5	Q422	D-9
D940	A-3	Q423	D-9
D941	A-5	Q424	D-9
D942	A-6	Q425	E-8
		Q426	E-9
IC302	C-10	Q521	D-3
IC401	D-11	Q550	D-3
IC402	D-10	Q551	D-3
IC501	D-5	Q552	D-3
IC502	B-4	Q559	C-2
IC503	B-5	Q560	D-2
IC504	D-4	Q561	D-2
IC505	C-2	Q562	D-3
IC506	C-1	Q570	B-7
IC910	B-10	Q571	B-7
IC920	B-10	Q572	B-5
IC921	B-3	Q573	C-6
IC930	C-7	Q574	C-6
IC931	D-7	Q576	C-7
		Q580	C-5
Q321	C-10	Q581	C-5
Q322	C-9	Q940	A-5

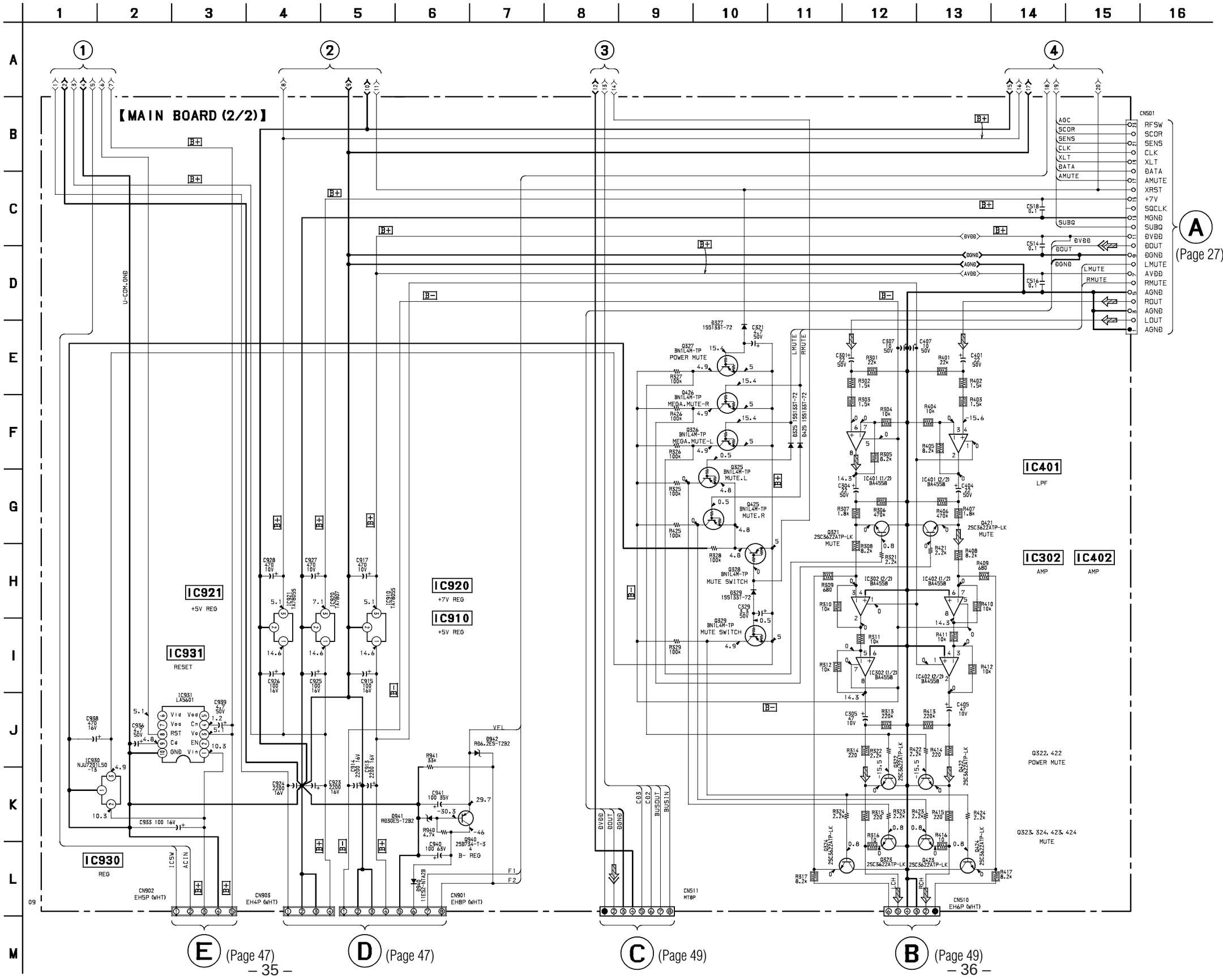
7-6. SCHEMATIC DIAGRAM – MAIN (1/2) SECTION –

• See page 26 for Waveforms.
• See page 58 for IC Pin Functions.
• See page 54, 55 for IC Block Diagrams.



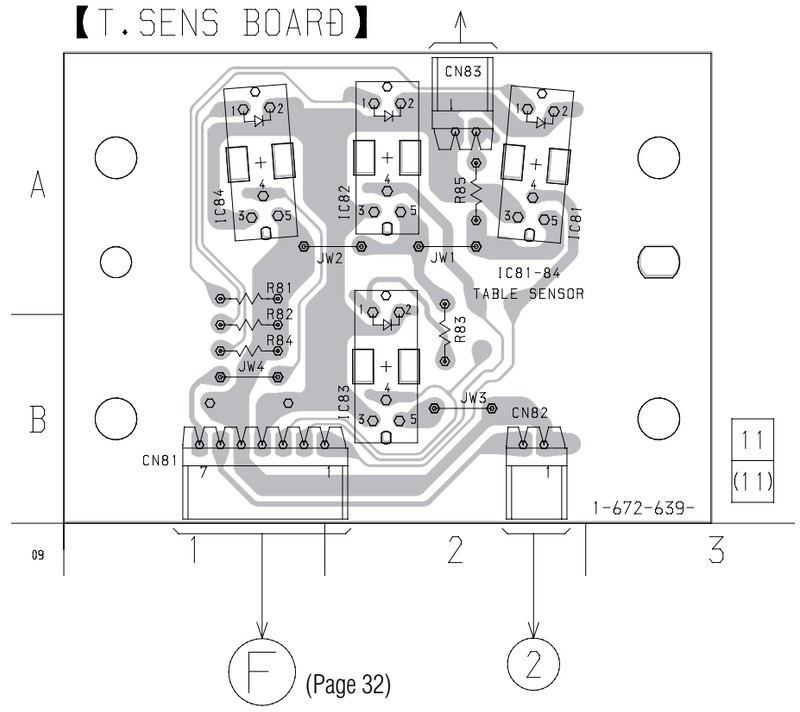
7-7. SCHEMATIC DIAGRAM – MAIN (2/2) SECTION –

• See page 20 for Waveforms.
• See page 54, 55 for IC Block Diagrams.
• See page 58 for IC Pin Functions.



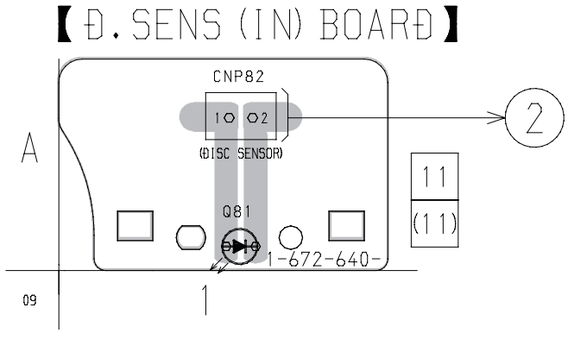
7-8. PRINTED WIRING BOARD – T.SENS SECTION –

• See page 20 for Circuit Boards Location.



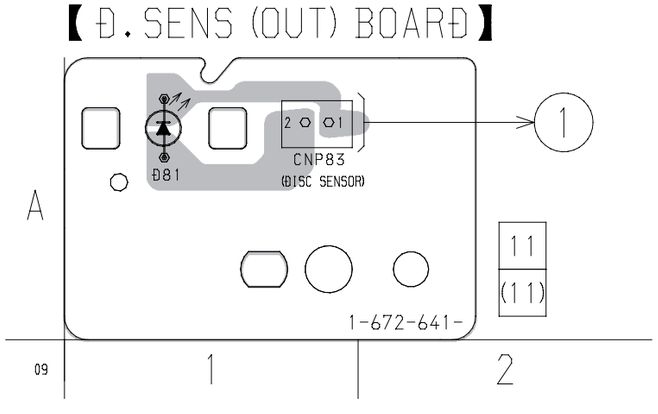
7-9. PRINTED WIRING BOARD – D.SENS (IN) SECTION –

• See page 20 for Circuit Boards Location.



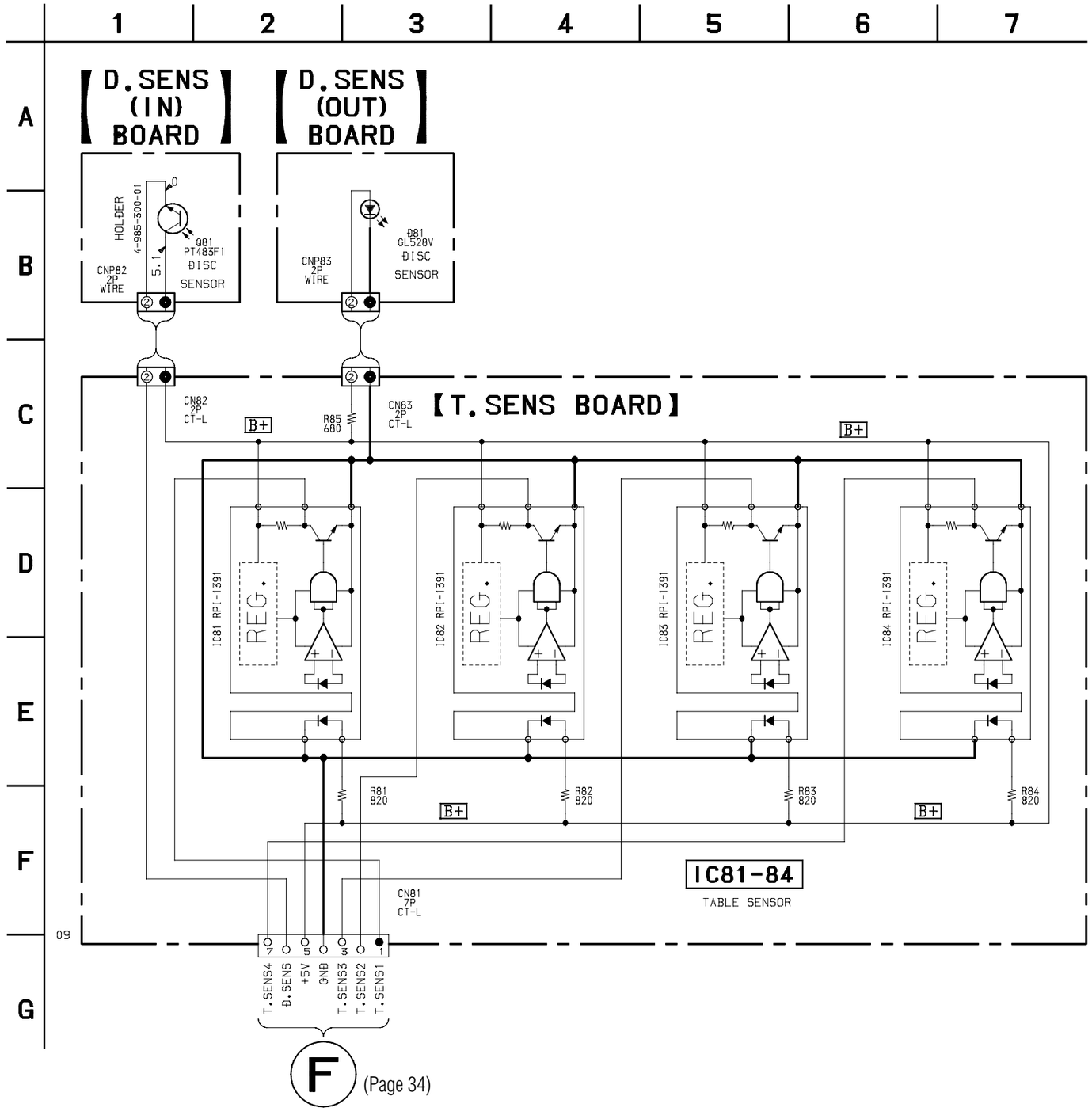
7-10. PRINTED WIRING BOARD – D.SENS (OUT) SECTION –

• See page 20 for Circuit Boards Location.



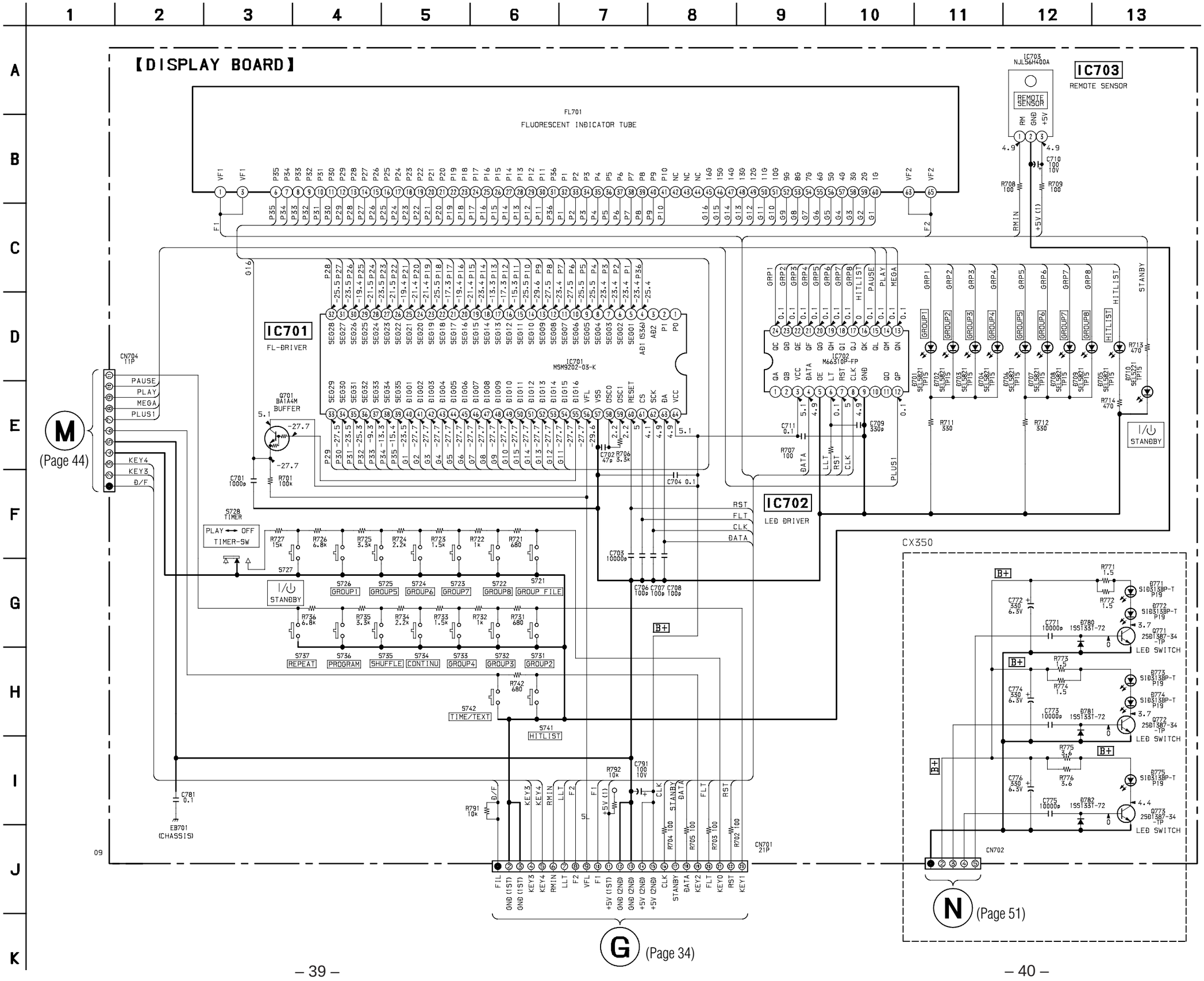
7-11. SCHEMATIC DIAGRAM – SENSOR SECTION –

• See page 26 for Waveforms.



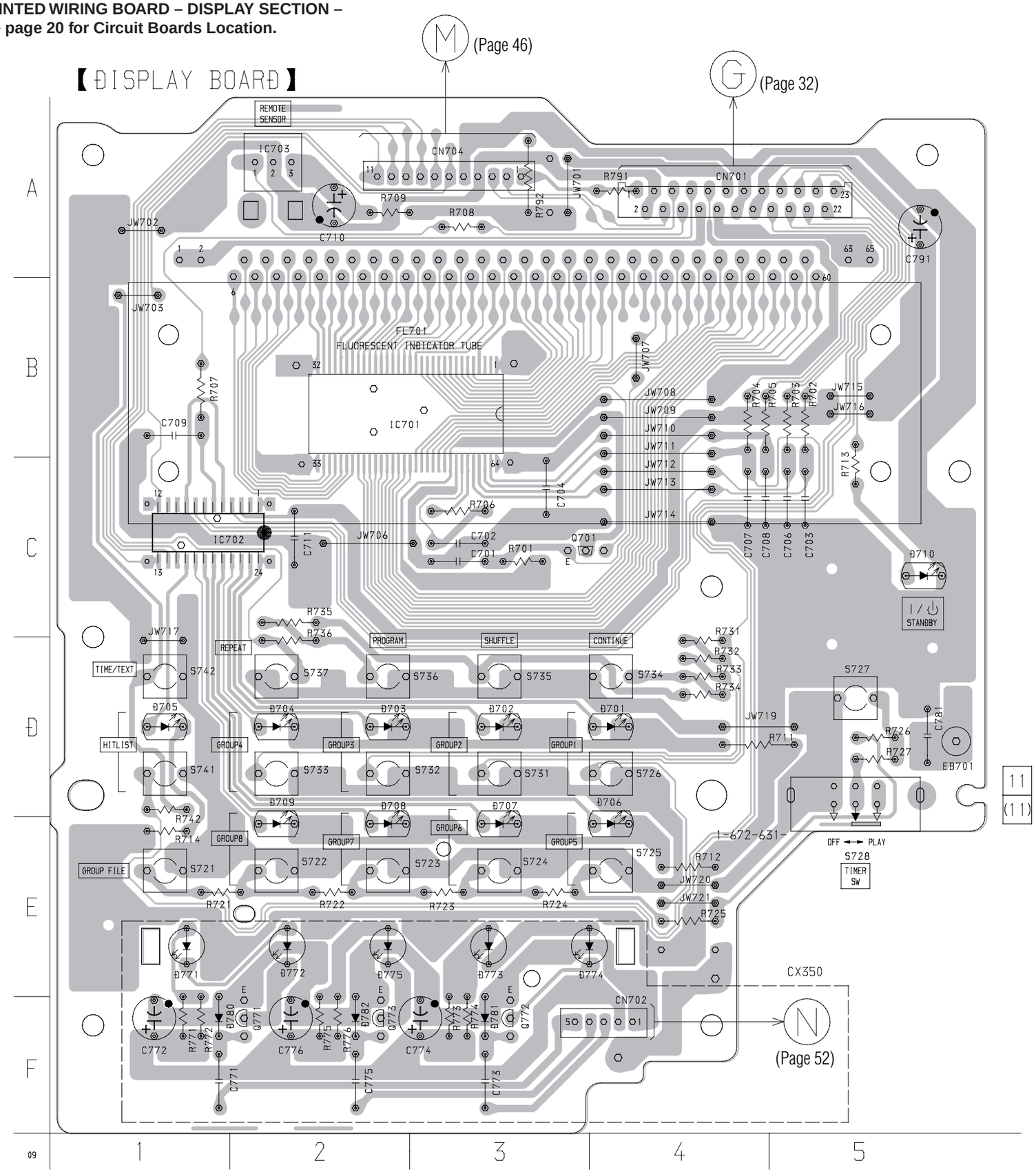
7-12. SCHEMATIC DIAGRAM – DISPLAY SECTION –

• See page 26 for Waveforms.



7-13. PRINTED WIRING BOARD – DISPLAY SECTION –

• See page 20 for Circuit Boards Location.

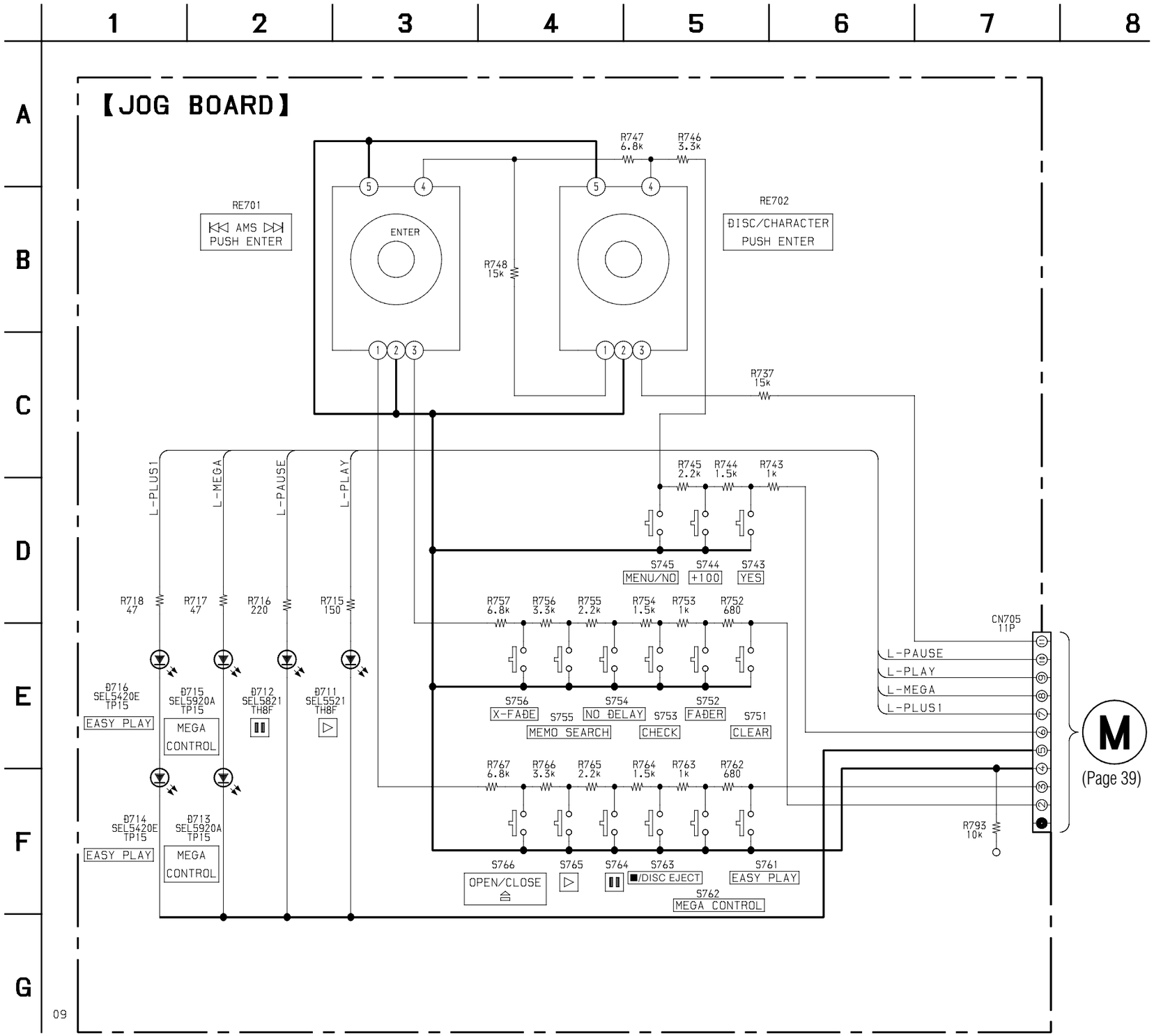


- **Semiconductor Location**

Ref. No.	Location
D701	D-4
D702	D-3
D703	D-2
D704	D-2
D705	D-1
D706	E-4
D707	E-3
D708	E-2
D709	E-2
D710	C-5
D771	E-1
D772	E-2
D773	E-3
D774	E-4
D775	E-2
D780	F-1
D781	F-3
D782	F-2
IC701	B-2
IC702	C-1
IC703	A-2
Q701	C-3
Q771	F-2
Q772	F-3
Q773	F-2

7-14. SCHEMATIC DIAGRAM – JOG SECTION –

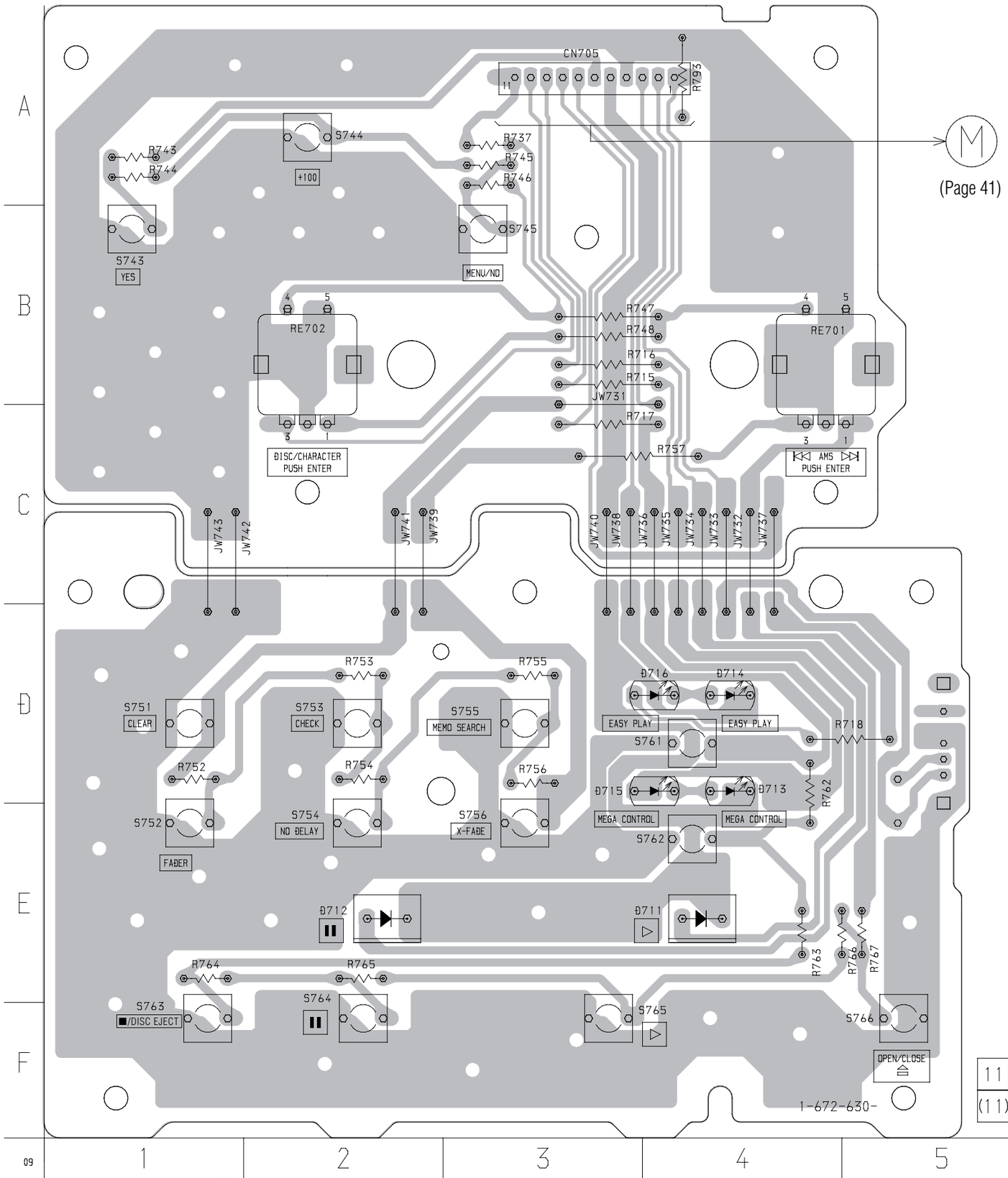
• See page 26 for Waveforms.



7-15. PRINTED WIRING BOARD – JOG SECTION –

• See page 20 for Circuit Boards Location.

【JOG BOARD】

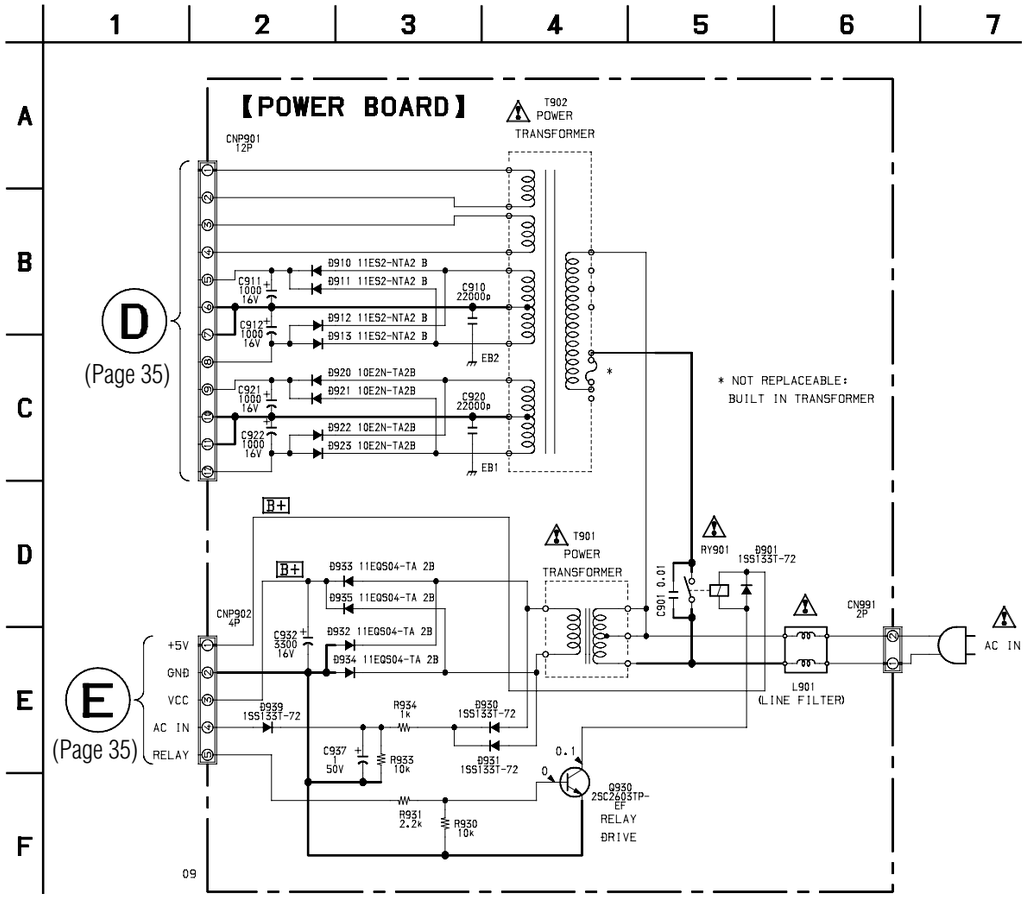


• Semiconductor Location

Ref. No.	Location
D771	D-4
D712	E-2
D713	D-4
D714	D-4
D715	D-4
D716	D-4

7-16. SCHEMATIC DIAGRAM – POWER SECTION –

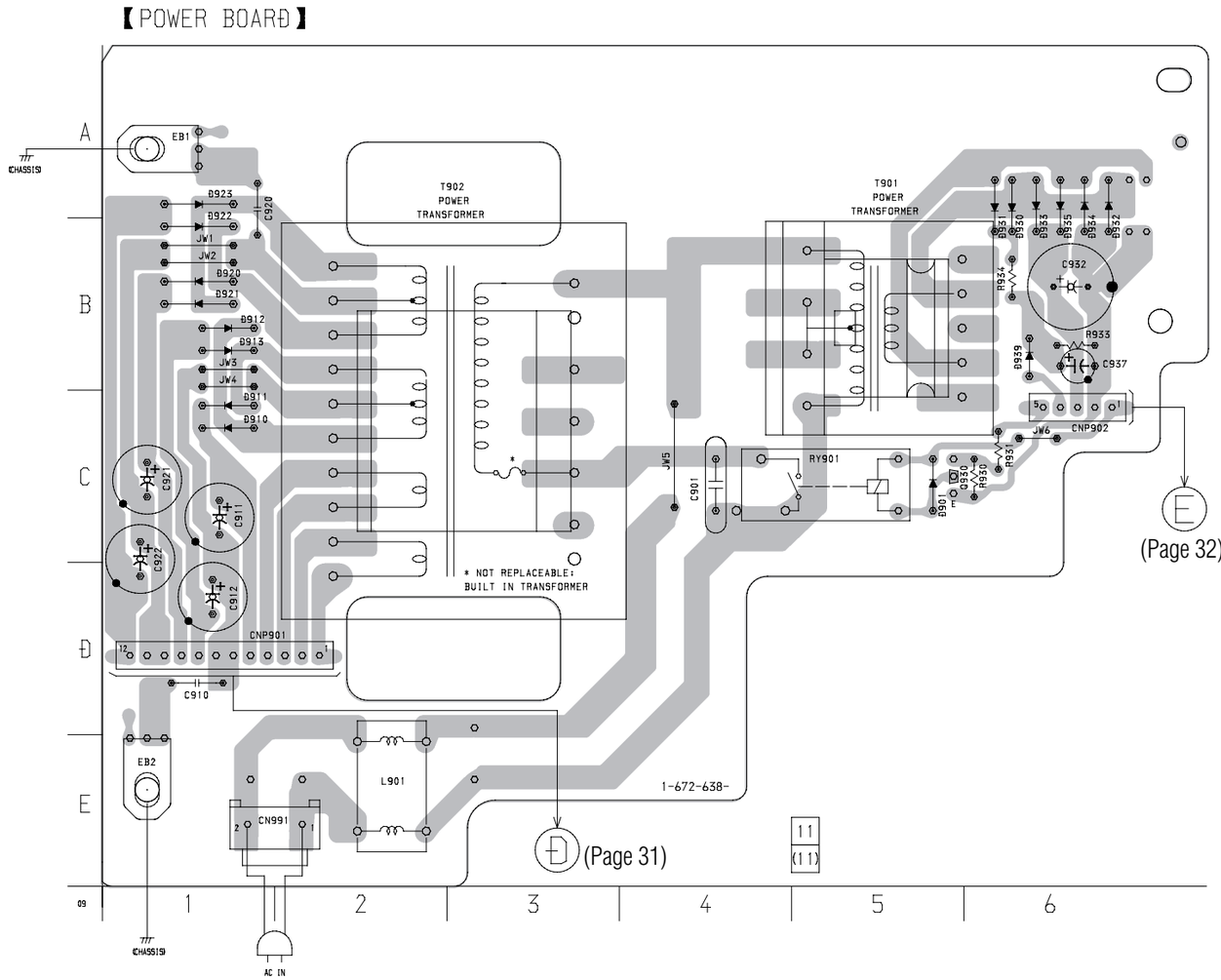
• See page 26 for Waveforms.



Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

7-17. PRINTED WIRING BOARD – POWER SECTION –

• See page 20 for Circuit Boards Location.

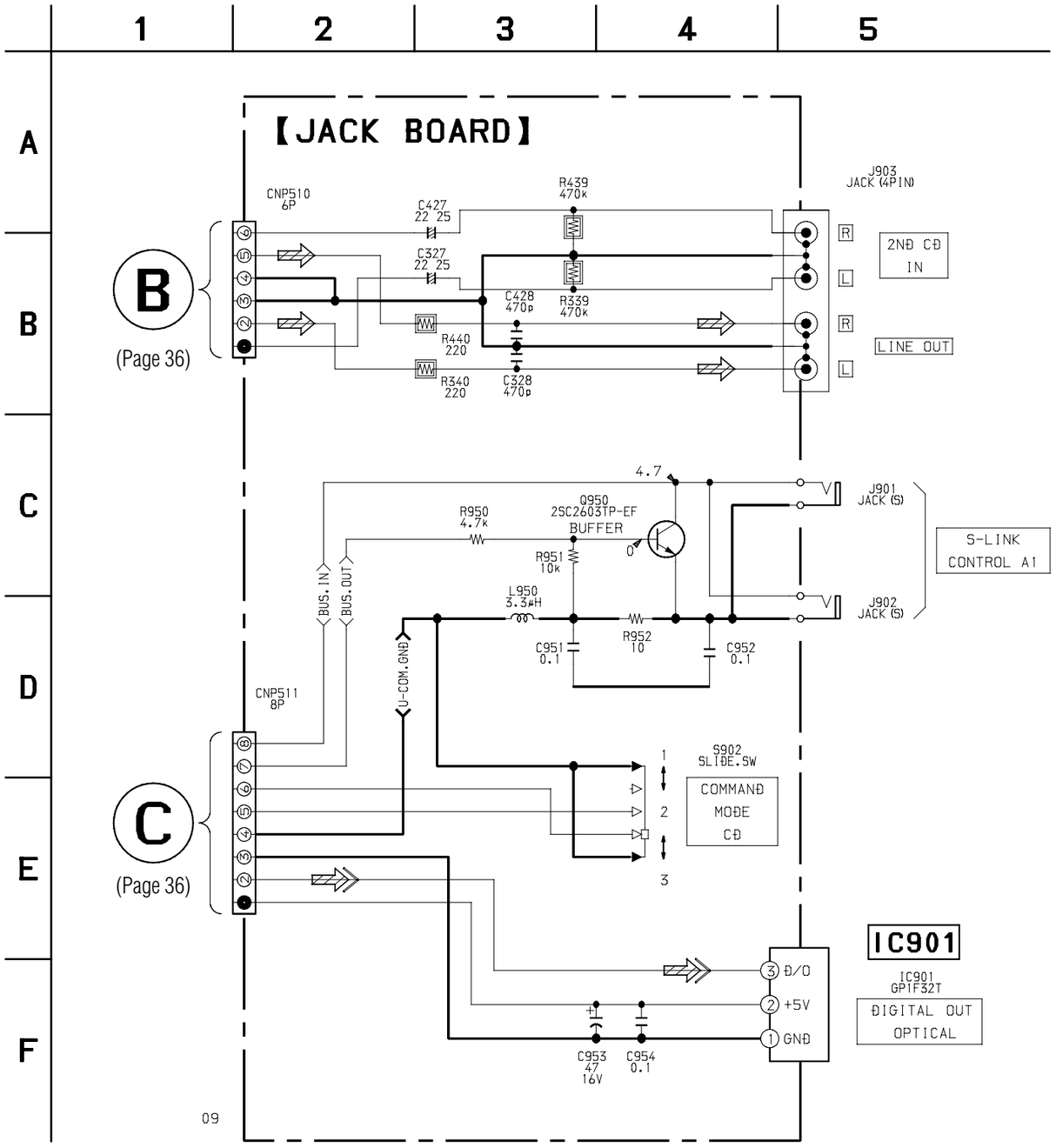


• **Semiconductor Location**

Ref. No.	Location
D901	C-5
D910	C-1
D911	C-1
D912	B-1
D913	B-1
D920	B-1
D921	B-1
D922	B-1
D923	A-1
D930	B-6
D931	B-6
D932	B-6
D933	B-6
D934	B-6
D935	B-6
D939	B-6

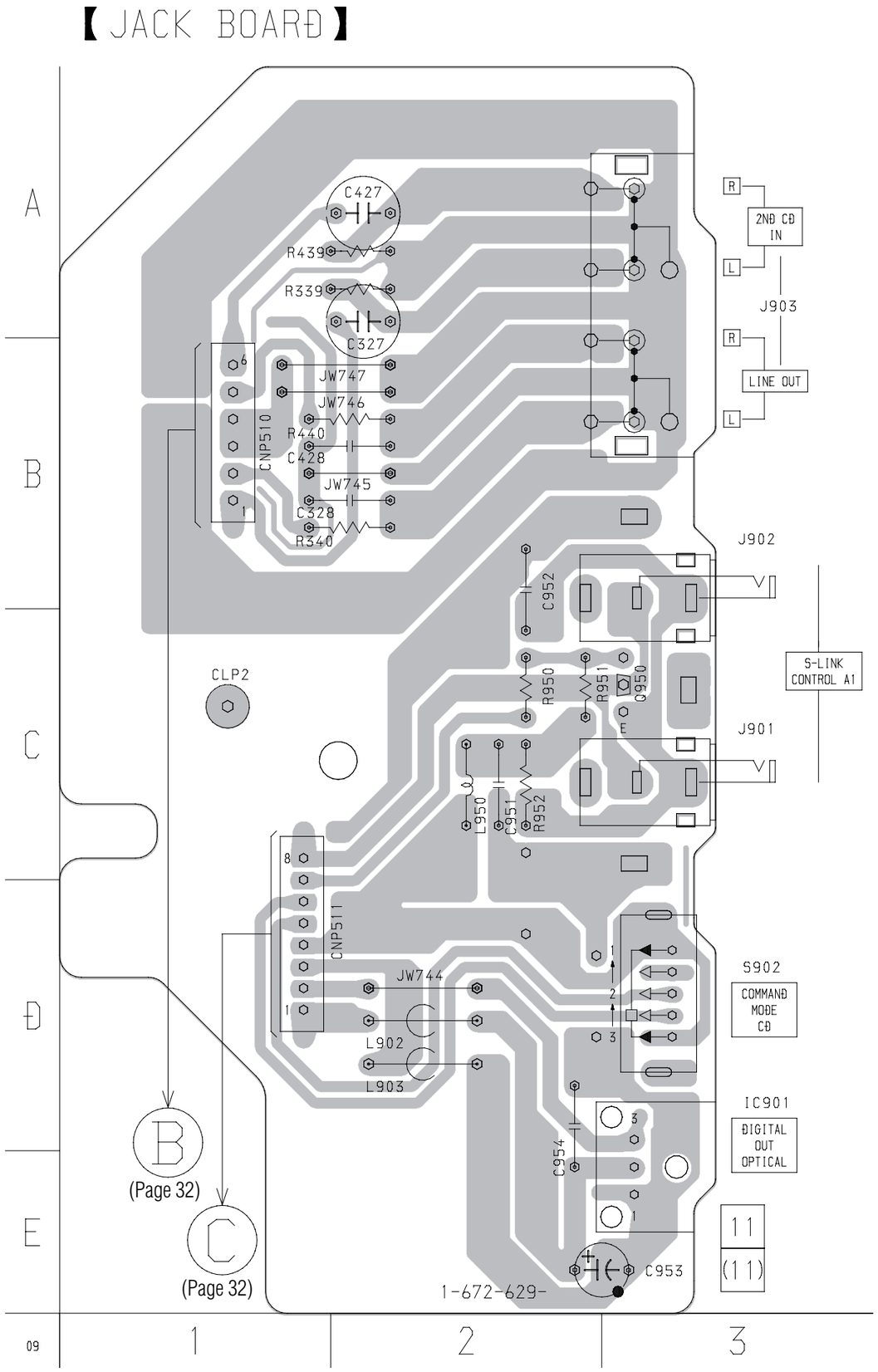
7-18. SCHEMATIC DIAGRAM – JACK SECTION –

• See page 26 for Waveforms.

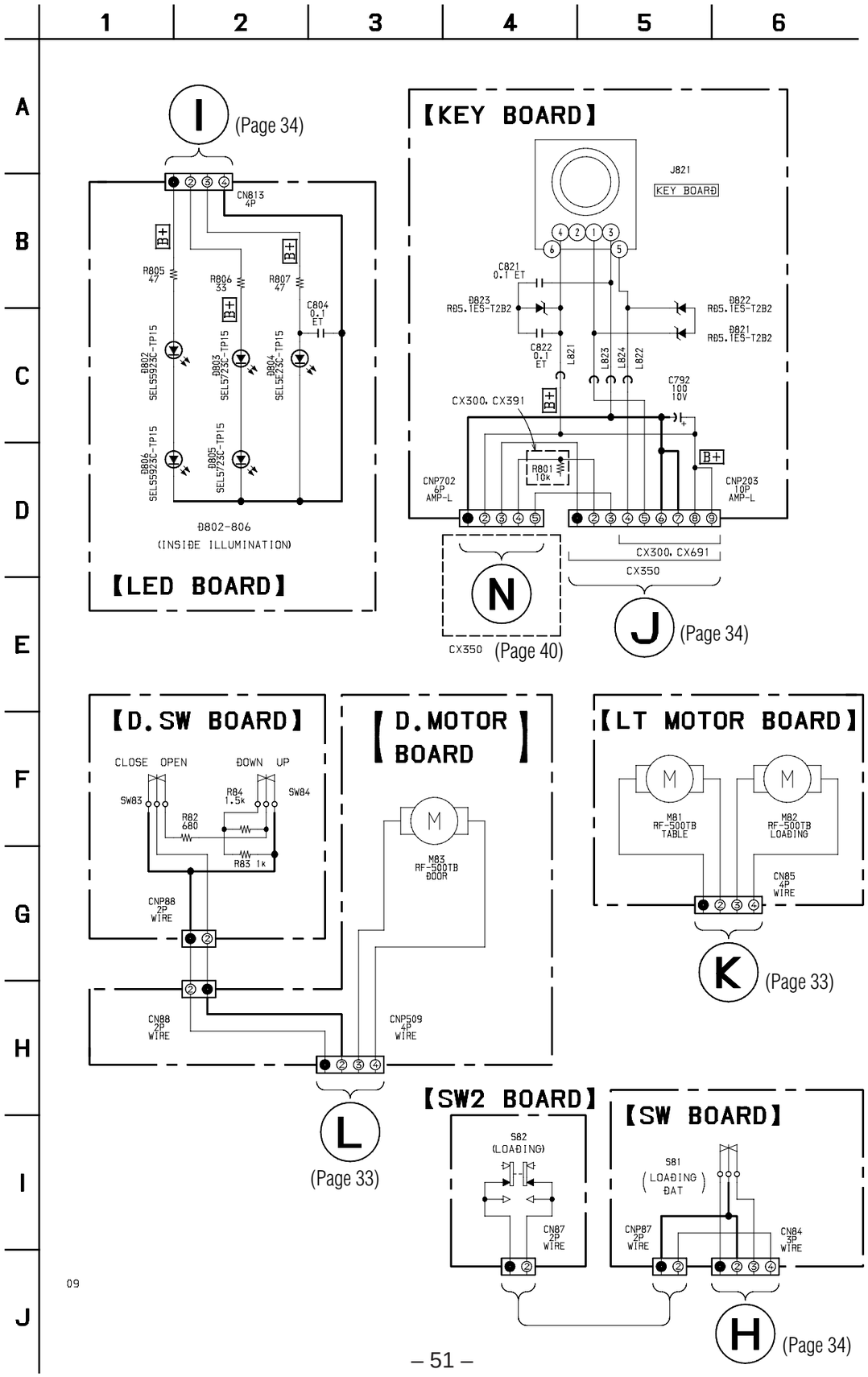


7-19. PRINTED WIRING BOARD – JACK SECTION –

• See page 20 for Circuit Boards Location.

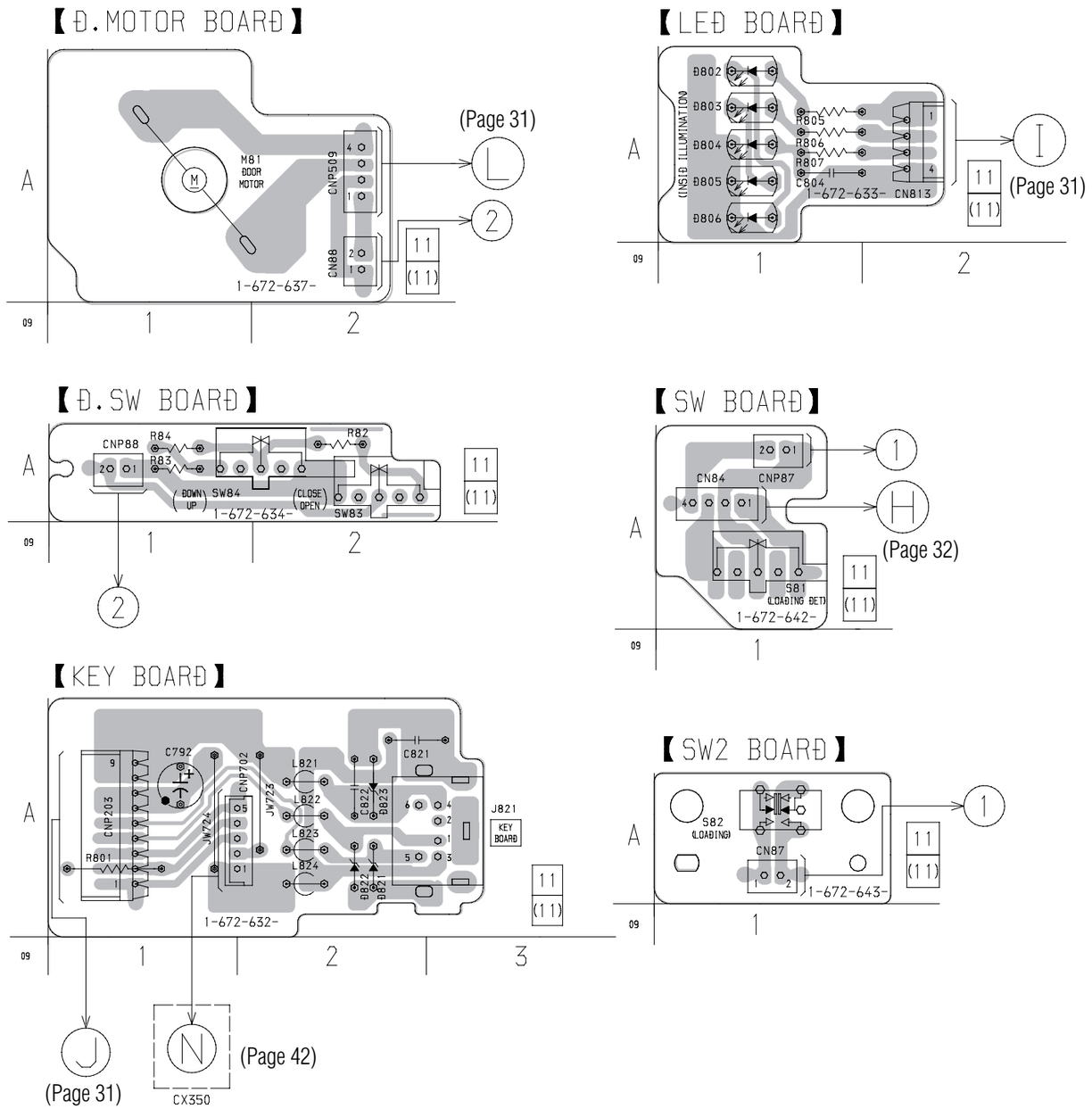


7-20. SCHEMATIC DIAGRAM – SENSOR/MOTOR SECTION –



7-21. PRINTED WIRING BOARD – SENSOR/MOTOR SECTION –

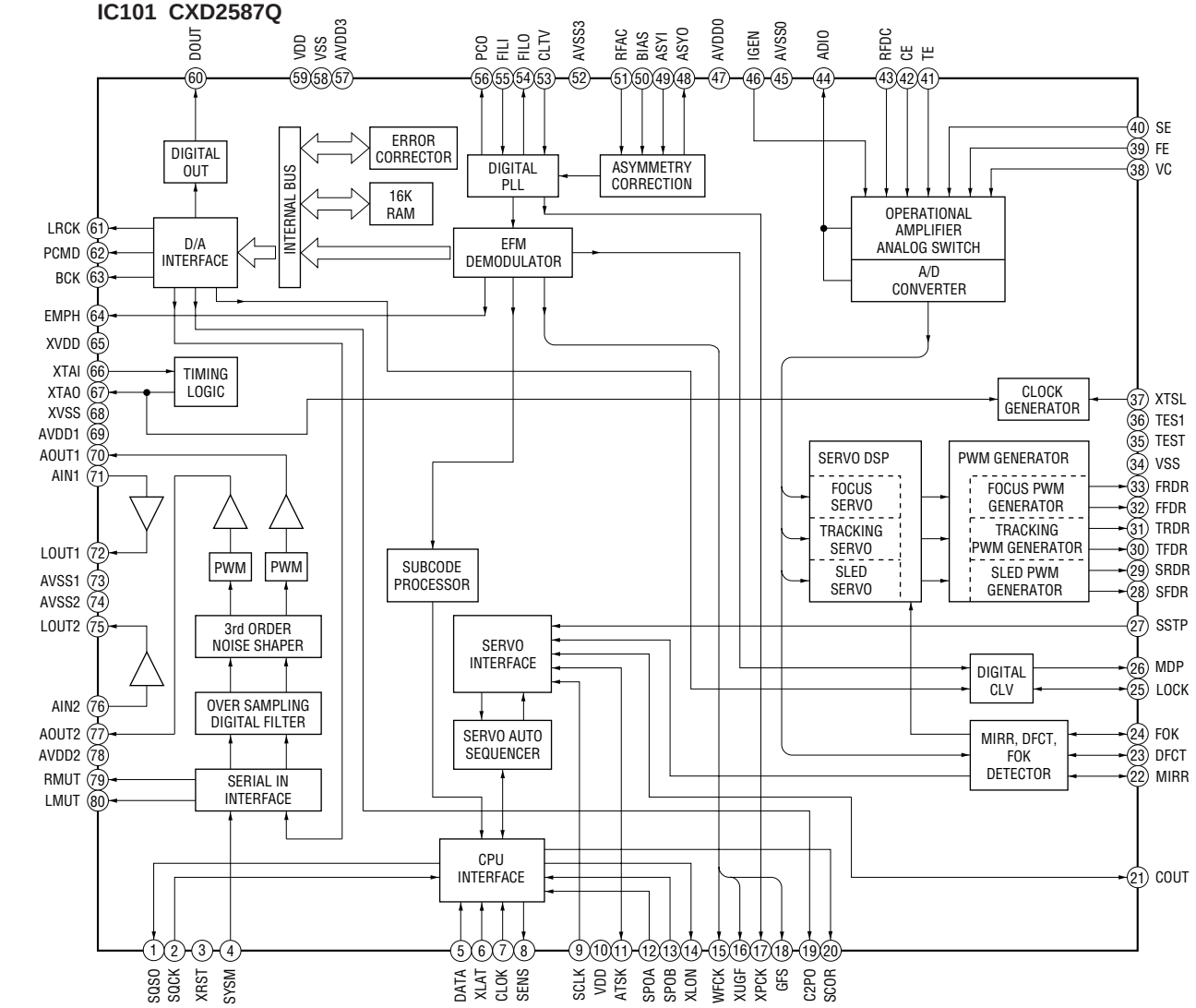
• See page 20 for Circuit Boards Location.



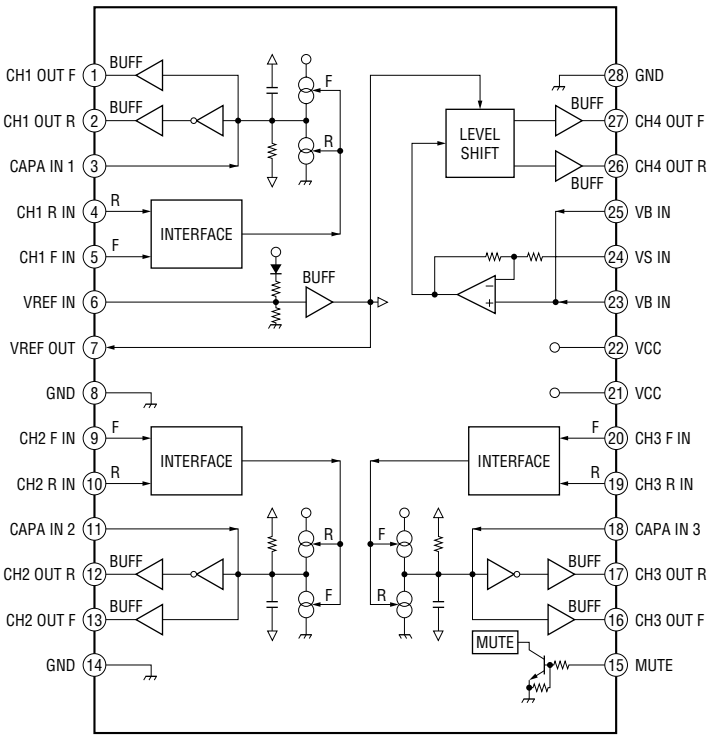
7-22. IC BLOCK DIAGRAMS

• BD section

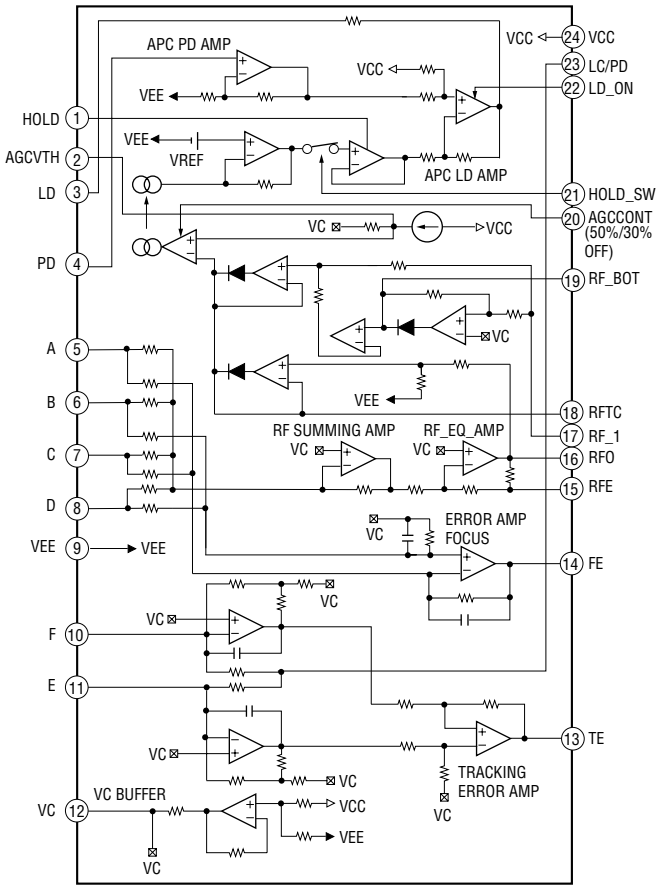
IC101 CXD2587Q



IC102 BA6392FP-E2

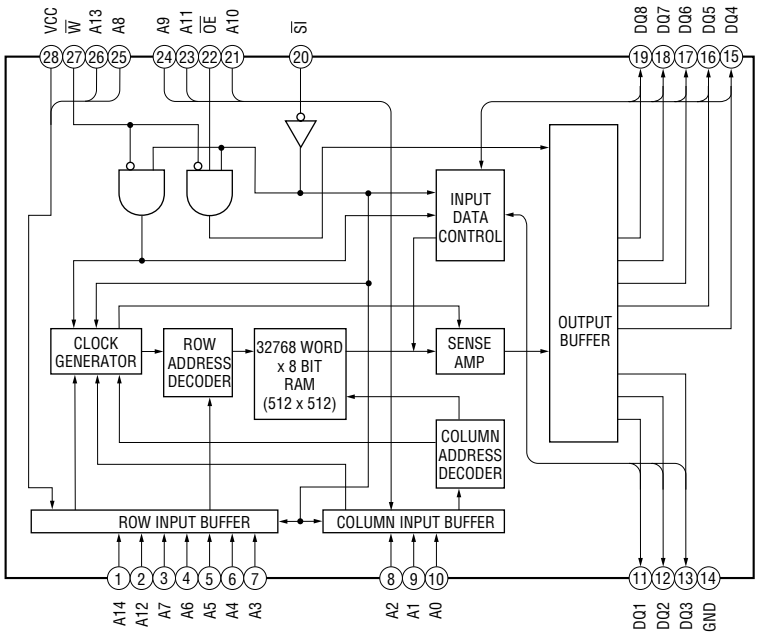


IC103 CXA2568M-T6

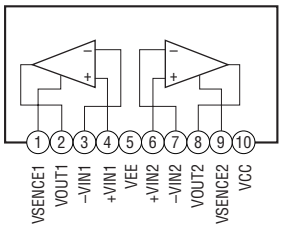


• Main section

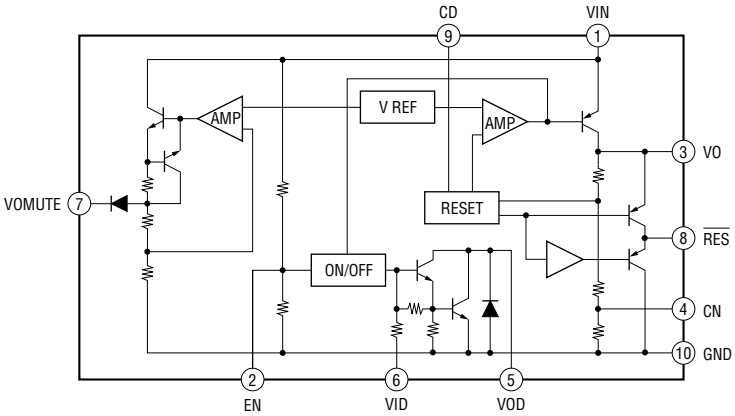
IC504 M5M5256DFP-70XL



IC505 LA6510

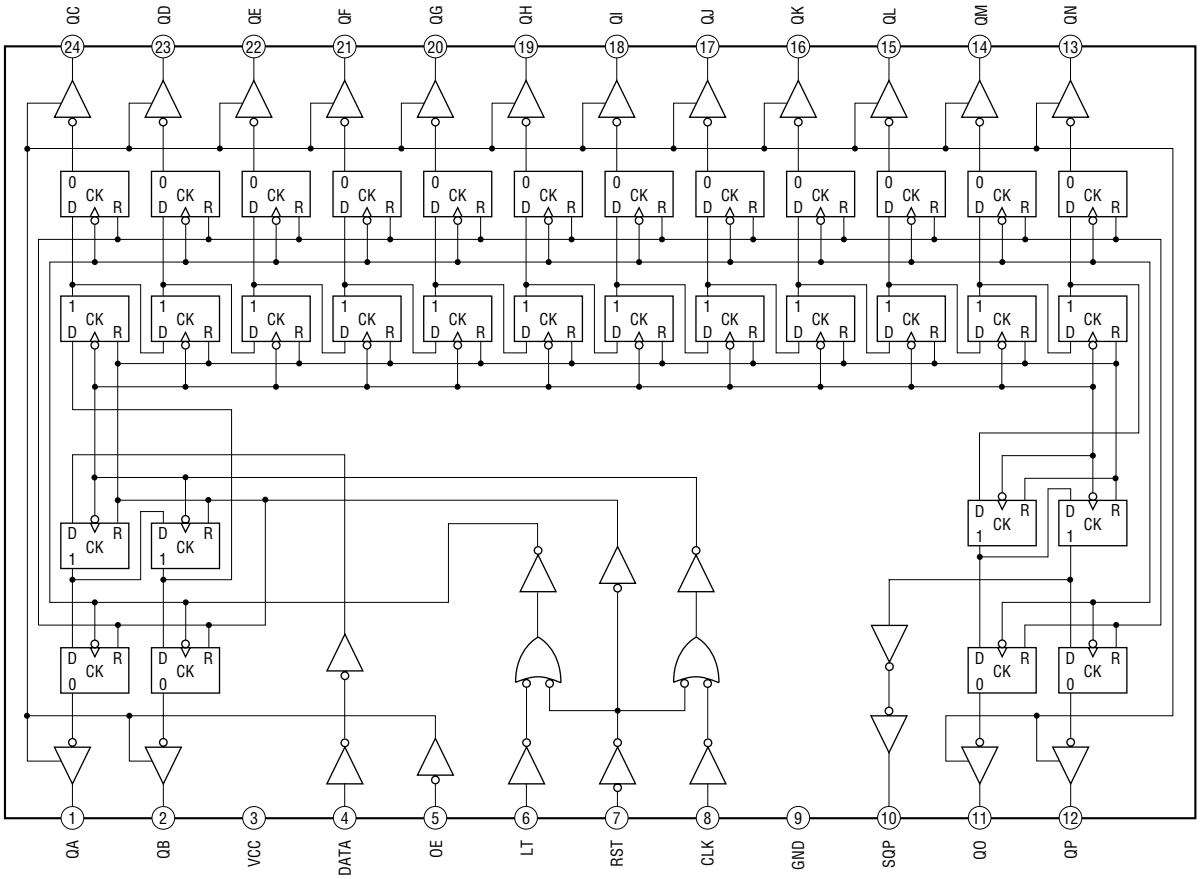


IC931 LA5601



• Display section

IC702 M66310FP



7-23. IC PIN FUNCTIONS

• IC101 DIGITAL SIGNAL PROCESSOR (CXD2587Q) (BD board)

Pin No.	Pin Name	I/O	Function
1	SQSO	O	Sub-Q 80-bit and PCM peak level data output (CD text data output)
2	SQCK	I	Clock input for SQSO read-out
3	XRST	I	System reset "L" : reset
4	SYSM	I	Muting input "H" : mute
5	DATA	I	Serial data input, supplied from CPU
6	XLAT	I	Latch input, supplied from CPU
7	CLOK	I	Serial data transfer clock input, supplied from CPU
8	SENS	O	SENS signal output to CPU
9	SCLK	I	SENS serial data read-out clock input
10	VDD	–	Digital power supply
11	ATSK	I/O	Input pin for anti-shock (Connected to ground)
12	SPOA	I	Microcomputer escape interface input A
13	SPOB	I	Microcomputer escape interface input B
14	XLON	O	Microcomputer escape interface output
15	WFCK	O	WFCK output (Not used)
16	XUGF	O	Not used
17	XPCK	O	Not used
18	GFS	O	Not used
19	C2PO	O	Not used
20	SCOR	O	Sub-code sync output
21	COUT	I/O	Numbers of track counted signal input/output (Not used)
22	MIRR	I/O	Mirror signal input/output (Not used)
23	DFCT	I/O	Defect signal input/output (Not used)
24	FOK	I/O	Focus OK input/output (Not used)
25	LOCK	I/O	GFS is sampled by 460 Hz. H when GFS is H (Not used)
26	MDP	O	Output to control spindle motor servo
27	SSTP	I	Input signal to detect disc inner most track
28	SFDR	O	Sled drive output
29	SRDR	O	Sled drive output
30	TFDR	O	Tracking drive output
31	TRDR	O	Tracking drive output
32	FFDR	O	Focus drive output
33	FRDR	O	Focus drive output
34	VSS	–	Digital ground
35	TEST	I	TEST pin connected normally to ground
36	TES1	I	TEST pin connected normally to ground
37	XTSL	I	X'tal selection input (Connected to ground)
38	VC	I	Center voltage input pin
39	FE	I	Focus error signal input
40	SE	I	Sled error signal input

• Abbreviation
GFS : Guarded Frame Sync

Pin No.	Pin Name	I/O	Function
41	TE	I	Tracking error signal input
42	CE	I	Center servo analog input
43	RFDC	I	RF signal input
44	ADIO	O	Test pin (Not used)
45	AVSS0	–	Analog ground
46	IGEN	I	Stabilized current input for operational amplifiers
47	AVDD0	–	Analog power supply
48	ASYO	O	EFM full swing output
49	ASYI	I	Asymmetry comparate voltage input
50	BIAS	I	Asymmetry circuit constant current input
51	RFAC	I	EFM signal input
52	AVSS3	–	Analog ground
53	CLTV	I	Control voltage input for master VCO1
54	FILO	O	Filter output for master PLL
55	FILI	I	Filter input for master PLL
56	PCO	O	Charge-pump output for master PLL
57	AVDD3	–	Analog power supply
58	VSS	–	Digital ground
59	VDD	–	Digital power supply
60	DOUT	O	Digital-out output pin
61	LRCK	O	D/A interface LR clock output (f = Fs) (Not used)
62	PCMD	O	D/A interface serial data output (Not used)
63	BCK	O	D/A interface bit clock output (Not used)
64	EMPH	O	Playback disc output in emphasis mode (Not used)
65	XVDD	–	Power supply for master clock
66	XTAI	I	X'tal oscillator circuit input (16.9344MHz)
67	XTAO	O	X'tal oscillator circuit output (16.9344MHz)
68	XVSS	–	Ground for master clock
69	AVDD1	–	Analog power supply
70	AOUT1	O	L-ch analog output
71	AIN1	I	L-ch operational amplifiers input
72	LOUT1	O	L-ch line output
73	AVSS1	–	Analog ground
74	AVSS2	–	Analog ground
75	LOUT2	O	R-ch line output
76	AIN2	I	R-ch operational amplifiers input
77	AOUT2	O	R-ch analog output
78	AVDD2	–	Analog power supply
79	RMUT	O	R-ch “0” detection flag output
80	LMUT	O	L-ch “0” detection flag output

• Abbreviation
EFM : Eight to Fourteen Modulation
PLL : Phase Locked Loop

• **IC501 SYSTEM CONTROL (MN101C12G-SA) (MAIN board)**

Pin No.	Pin Name	I/O	Function
1	GND	—	Ground
2	DOOR SW	I	Door panel SW (5V: OPEN)
3	FILTER SW	I	D-F mode change SW
4	KEY1	I	Key A/D input
5	KEY2	I	
6	KEY3	I	
7	KEY4	I	
8	KEY5	I	
9	D.SENS	—	Disc sensor input
10	VREF	—	A/D standard power terminal
11	VDD	—	Connect to +5V
12	X'TAL OSC1	—	X'tal Oscillation (10MHz) Output
13	X'TAL OSC2	—	X'tal Oscillation (10MHz) Input
14	VSS	—	Connect to ground
15	X1	—	Not used
16	X0	—	Not used
17	GND	—	Ground
18	AC IN	I	Power monitor input
19	ICSW (RELAY ON/OFF)	O	Power terminal for circumference IC
20	LEDLT	O	Latch for LED driver output
21	FLDATA	O	Data for fluorescent indicator driver output
22	FLLT	O	Latch for fluorescent indicator output
23	FLCLK	O	Clock for fluorescent indicator output
24	RESET OUT	O	Reset output for circumference IC
25	STANDBY-LED	O	LED output for STANDBY
26	RMIN	I	Remote control input
27	T2	I	Table sensor input
28	T4	I	
29	BUSIN	I	CONTROL A1 input
30	SCOR	I	Sub code Q synchronous signal
31	KBCIN	I	Keyboard clock input
32	T1	I	Table sensor input
33	RESET	I	System reset signal input
34	KBCOUT	O	Keyboard clock output
35	KBDOUT	O	Keyboard data output
36	KBDIN	I	Keyboard data input
37	TEST-PULSE2	—	DISC detection test output
38	TEST PULSE	O	TSENS1, 2 AND output
39	AGC	O	CXD2587 LPH output
40	SMUTE	O	Mute output ON
41	AMUTE	I	Mute output ON
42	DATA	O	CXD2587 D/F data output
43	XLT	O	CXD2587 Latch output
44	CLK	O	CXD2587 D/F clock output
45	SENS	I	CXD2587 Servo sensor signal input
46	SUBQ	I	CXD2587 Q data input
47	SQCK	O	CXD2587 Q data clock output
48	LED3	O	interior illumination
49	LED2	O	interior illumination

Pin No.	Pin Name	I/O	Function
50	LED1	O	interior illumination
51	SELECT	I	CX691 select port (H: CX691 L: Other)
52	T3	I	Table sensor input
53	SELECT	I	J select port (H: J L: Other)
54	SELECT	I	ES select port (H: ES L: HiFi) (Fix at L)
55	SELECT	I	2WAY select port (H: 2WAY L: ONE WAY)
56	2WAY-LT	O	U-COM chip enable output
57	CX5/CX6	O	CXD8735 Latch output
58	CX3/CX4	O	Not used
59	2WAYLT	O	Reset output
60	AFADJ	I	AFADJ select port
61	ADJ	I	ADJ mode select port
62	WE	O	SRAM write enable output
63	A13	O	SRAM address output
64	A8	O	
65	A9	O	
66	A10	O	
67	A11	O	
68	A14	O	
69	A12	O	
70	A7	O	
71	A6	O	
72	A5	O	
73	A4	O	
74	A3	O	
75	A2	O	
76	A1	O	
77	A0	O	
78	CS	O	SRAM chip select output
79	D2	I/O	SRAM data input/output
80	D1	I/O	
81	D0	I/O	
82	D3	I/O	
83	D4	I/O	
84	D5	I/O	
85	D6	I/O	
86	D7	I/O	
87	BUSOUT	O	CONTROL-A1 output
88	CD2	I	Remote control mode select input (CDP2)
89	CD3	I	Remote control mode select input (CDP3)
90	SW	I	Table close switch
91	INSW	I	Loading in switch
92	OUTSW	I	Loading out switch
93	DOOROUT	—	Door open output
94	DOORIN	—	Door close output
95	GND	—	Ground
96	LDOUT	O	Loading motor PWM output for outside direction
97	LDIN	O	Loading motor PWM output for inside direction
98	TBLR	O	Table motor PWM output for right turn
99	TBLL	O	Table motor PWM output for left turn
100	DVDD	—	D/A converter standard power terminal

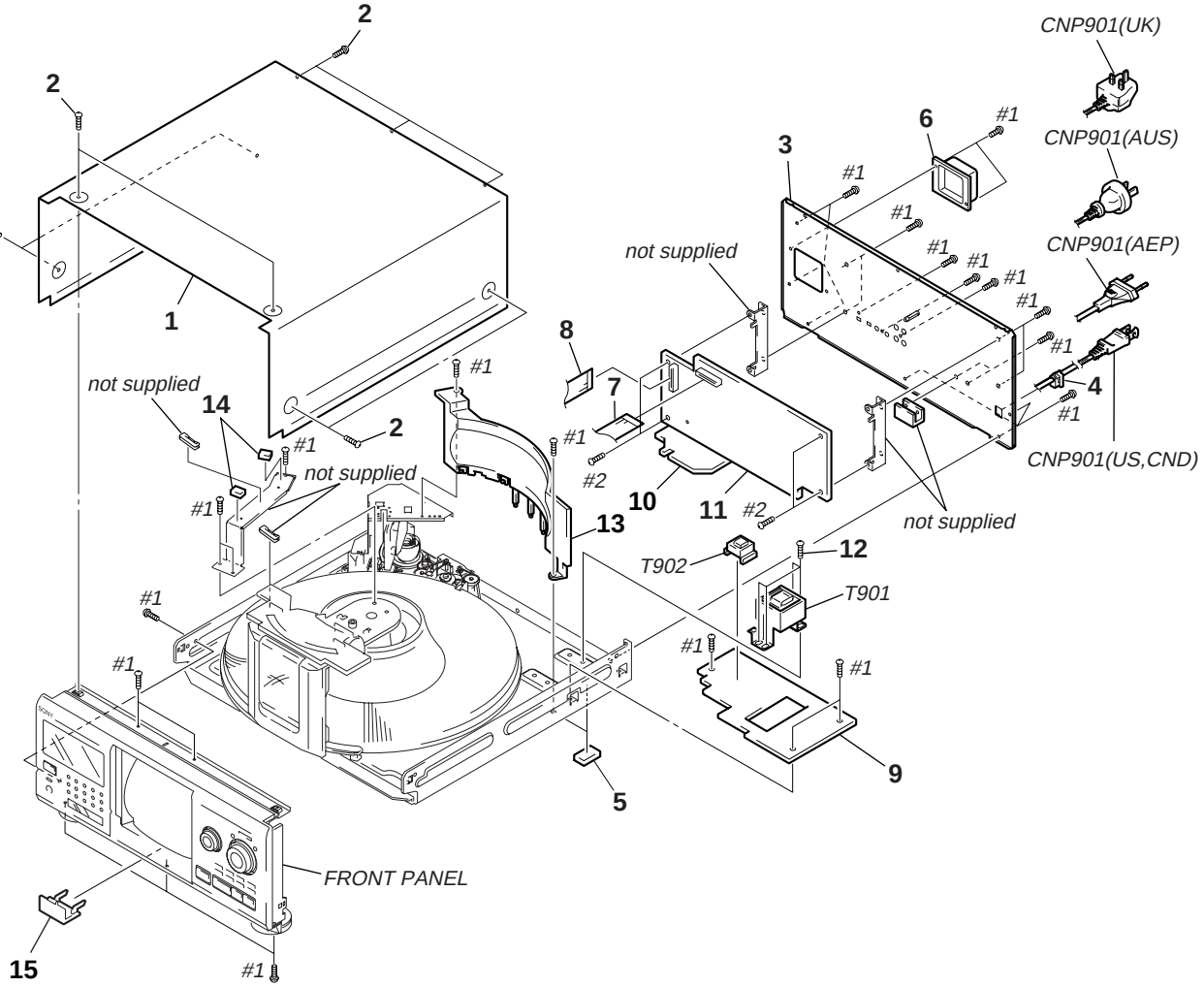
SECTION 8
EXPLODED VIEWS

NOTE:
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Color Indication of Appearance Parts Example:
  KNOB, BALANCE (WHITE) . . . . (RED)
  ↑ ↑
  Parts color Cabinets color
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation
  CND : Canadian model
  AUS : Australian model

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

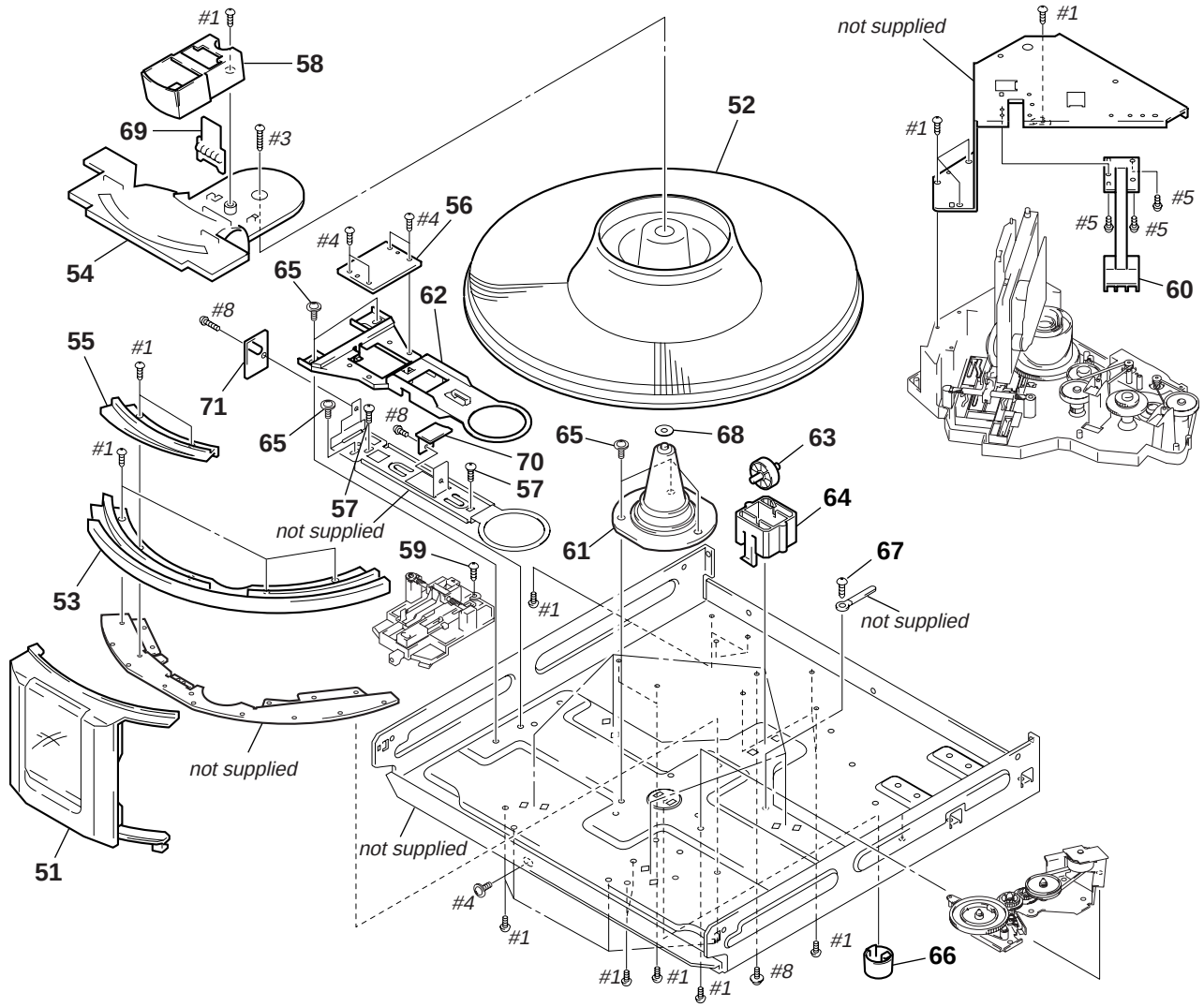
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

8-1. CASE SECTION



Ref. No.	Part No.	Description	Remark
1	4-215-970-11	CASE	
2	4-210-291-01	SCREW (CASE 3 TP2) (CX300/CX350)	
3	4-215-964-01	PANEL, BACK (CX300:US)	
3	4-215-964-11	PANEL, BACK (CX300:CND)	
3	4-215-964-21	PANEL, BACK (CX350:US)	
3	4-215-964-31	PANEL, BACK (CX350:CND)	
3	4-215-964-41	PANEL, BACK (CX350:AEP,UK)	
3	4-215-964-51	PANEL, BACK (CX350:AUS)	
3	4-215-964-71	PANEL, BACK (CX691)	
* 4	3-703-244-00	BUSHING (2104), CORD	
5	4-215-971-01	CUSHION (FOOT)	
* 6	4-982-807-01	COVER (FFC)	
7	1-790-420-11	WIRE (FLAT TYPE) (21 CORE)	
8	1-773-183-11	WIRE (FLAT TYPE) (23 CORE)	
9	1-672-638-11	POWER BOARD	
10	1-672-629-11	JACK BOARD	
11	A-4724-557-A	MAIN BOARD, COMPLETE (CX350:US,CND)	
11	A-4724-560-A	MAIN BOARD, COMPLETE (CX350:AEP,UK,AUS)	
11	A-4724-567-A	MAIN BOARD, COMPLETE (CX300/CX691)	
12	4-886-821-11	SCREW, S TIGHT, +PTTWH3X6	
13	4-215-967-01	COVER (P.T.)	
14	4-985-553-11	CUSHION	
15	4-215-960-01	COVER (CHASSIS)	
⚠CNP901	1-575-651-21	CORD, POWER (CX350:AEP)	
⚠CNP901	1-696-845-11	CORD, POWER (CX350:AUS)	
⚠CNP901	1-751-529-11	CORD, POWER (CX350:UK)	
⚠CNP901	1-783-531-41	CORD, POWER (CX300/CX350:US,CND/CX691)	
⚠T901	1-433-666-11	TRANSFORMER, POWER (CX300/CX350:US,CND/CX691)	
⚠T901	1-433-668-11	TRANSFORMER, POWER (CX350:AEP,UK)	
⚠T901	1-433-877-11	TRANSFORMER, POWER (CX350:AUS)	
⚠T902	1-433-663-11	TRANSFORMER, POWER (CX300/CX350:US,CND/CX691)	
⚠T902	1-433-665-11	TRANSFORMER, POWER (CX350:AEP,UK,AUS)	

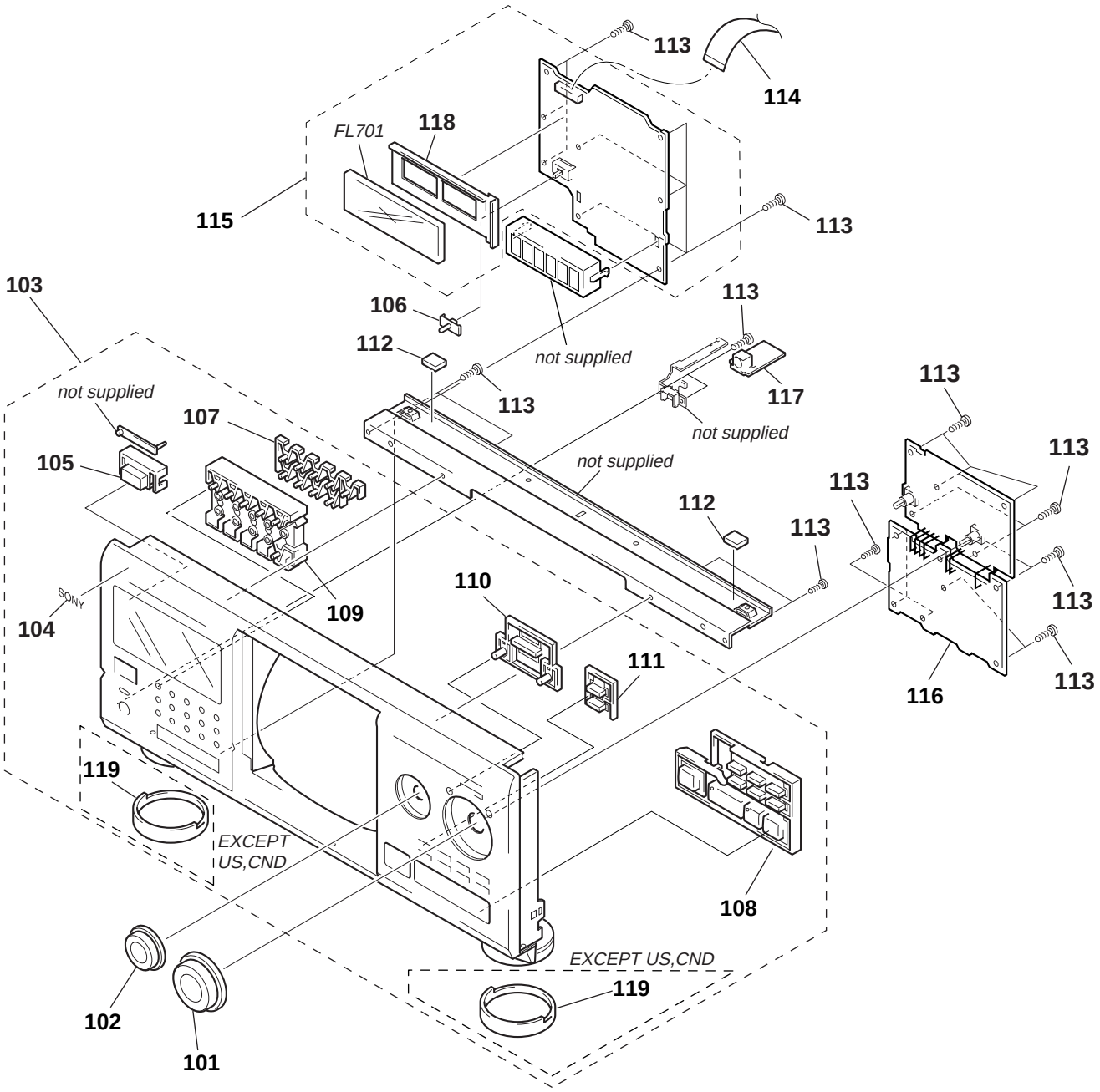
8-2. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark
51	X-4950-889-1	DOOR (CD) ASSY	
52	X-4950-902-1	TABLE (300) ASSY	
53	4-215-952-01	GUIDE (DOOR.B)	
54	4-215-953-01	GUIDE (DOOR.T)	
55	4-215-954-01	COVER (FRONT)	
56	1-672-639-11	T.SENS BOARD	
57	4-216-096-01	SCREW (T1), STEP	
58	4-215-968-01	WINDOW (INTERNAL ILLUMINATION)	
59	3-356-601-11	SCREW, STEP	
60	4-216-088-01	GUIDE (DISC)	
61	4-216-089-01	SHAFT (CENTER)	

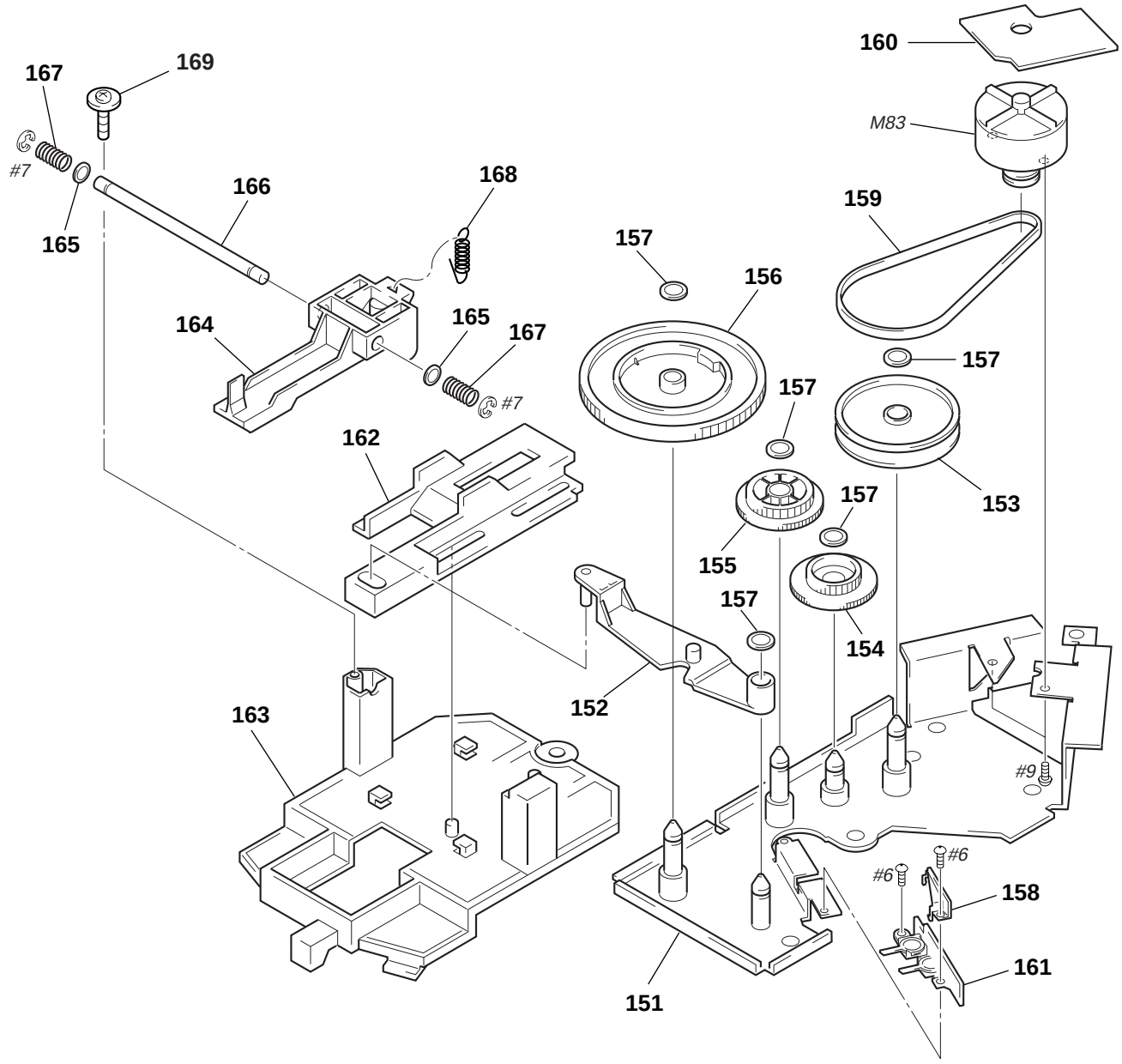
Ref. No.	Part No.	Description	Remark
62	4-216-091-01	HOLDER (TABLE SENSOR)	
63	4-216-092-01	HOLDER (ROLLER)	
64	4-216-093-01	ROLLER	
65	4-886-821-11	SCREW, S TIGHT, +PTTWH 3X6	
66	4-931-169-01	FOOT	
67	3-970-608-01	SUMITITE (B3), +BV	
68	3-701-447-21	WASHER, 10	
69	1-672-633-11	LED BOARD	
70	1-672-640-11	D.SENS (IN) BOARD	
71	1-672-641-11	D.SENS (OUT) BOARD	

8-3. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
101	4-215-818-01	KNOB (DISC)	
102	4-215-819-01	KNOB (AMS)	
103	X-4950-855-1	PANEL ASSY, FRONT (CX300)	
103	X-4950-857-1	PANEL ASSY, FRONT (CX350:US,CND)	
103	X-4950-858-1	PANEL ASSY, FRONT (CX350:AEP,UK,AUS)	
103	X-4950-917-1	PANEL ASSY, FRONT (CX691)	
104	4-996-698-01	EMBLEM, SONY	
105	4-215-928-01	BUTTON (POWER)	
106	3-917-216-21	KNOB (TIMER)	
107	4-215-816-01	BUTTON (GROUP)	
108	X-4950-856-1	BUTTON (PLAY) ASSY	
109	4-215-815-01	BUTTON (MODE)	
110	4-215-817-01	BUTTON (MENU)	
111	4-215-814-01	BUTTON (MEGA-CON)	
112	4-985-553-21	CUSHION	
113	4-951-620-01	SCREW (2.6X8), +BVTP	
114	1-790-420-11	WIRE (FLAT TYPE) (21 CORE)	
115	A-4724-546-A	DISPLAY BOARD, COMPLETE (CX350)	
115	A-4724-566-A	DISPLAY BOARD, COMPLETE (CX300/CX691)	
116	A-4724-545-A	JOG BOARD, COMPLETE (CX350)	
116	A-4724-565-A	JOG BOARD, COMPLETE (CX300/CX691)	
117	1-672-632-11	KEY BOARD	
118	4-982-811-11	HOLDER (FL)	
119	4-219-323-01	RING (DIA. 50) (EXCEPT US, CND)	
FL701	1-517-861-11	INDICATOR TUBE, FLUORESCENT	

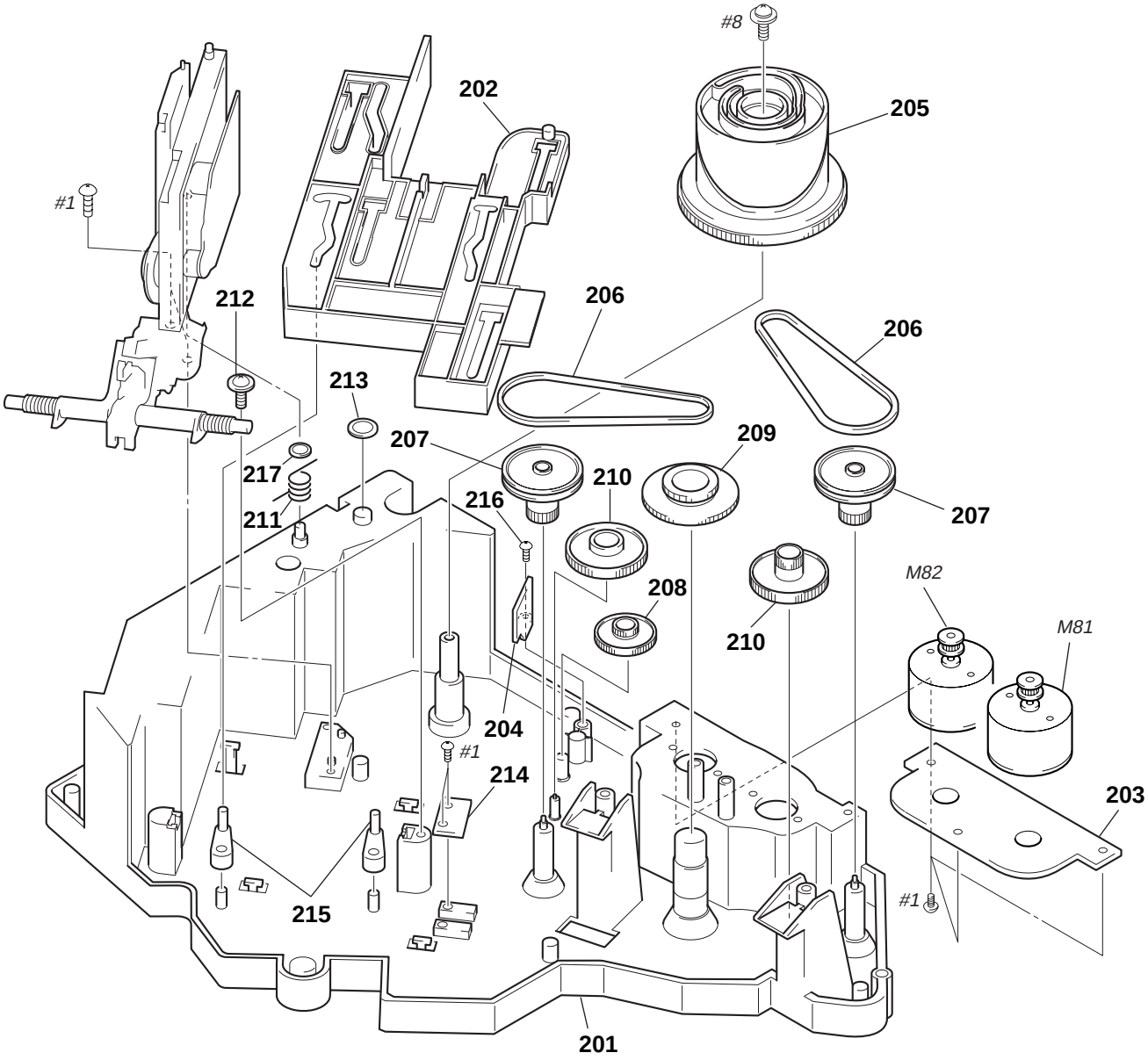
8-4. MECHANISM SECTION 1 (CDM54-K1BD35E)



Ref. No.	Part No.	Description	Remark
151	X-4950-888-1	BRACKET (DOOR.GEAR) ASSY	
152	4-215-959-01	LEVER (CAM.PU)	
153	4-215-955-01	GEAR (DOOR.PULLEY)	
154	4-215-956-01	GEAR (DOOR.CENTER)	
155	4-215-957-01	GEAR (DOOR.DRIVE)	
156	4-215-958-01	GEAR (DOOR.CAM)	
157	3-325-697-21	WASHER	
158	4-219-324-01	HOLDER (L-SW)	
159	4-219-326-01	BELT (DIA. 42X1.2)	
160	1-672-637-11	D.MOTOR BOARD	

Ref. No.	Part No.	Description	Remark
161	1-672-634-11	D.SW (A) BOARD	
162	4-216-099-01	SLIDER (POP-UP)	
163	4-216-100-01	HOLDER (POP-UP)	
164	4-216-098-01	LEVER (POP-UP)	
165	3-701-441-21	WASHER	
166	4-216-102-01	SHAFT (POP-UP FULCRUM)	
167	4-216-103-01	SPRING (POP-UP), COMPRESSION	
168	4-216-104-01	SPRING (POP-UP), TENSION	
169	4-998-716-01	SCREW, BU FITTING	
M83	X-4950-062-1	DOOR MOTOR	

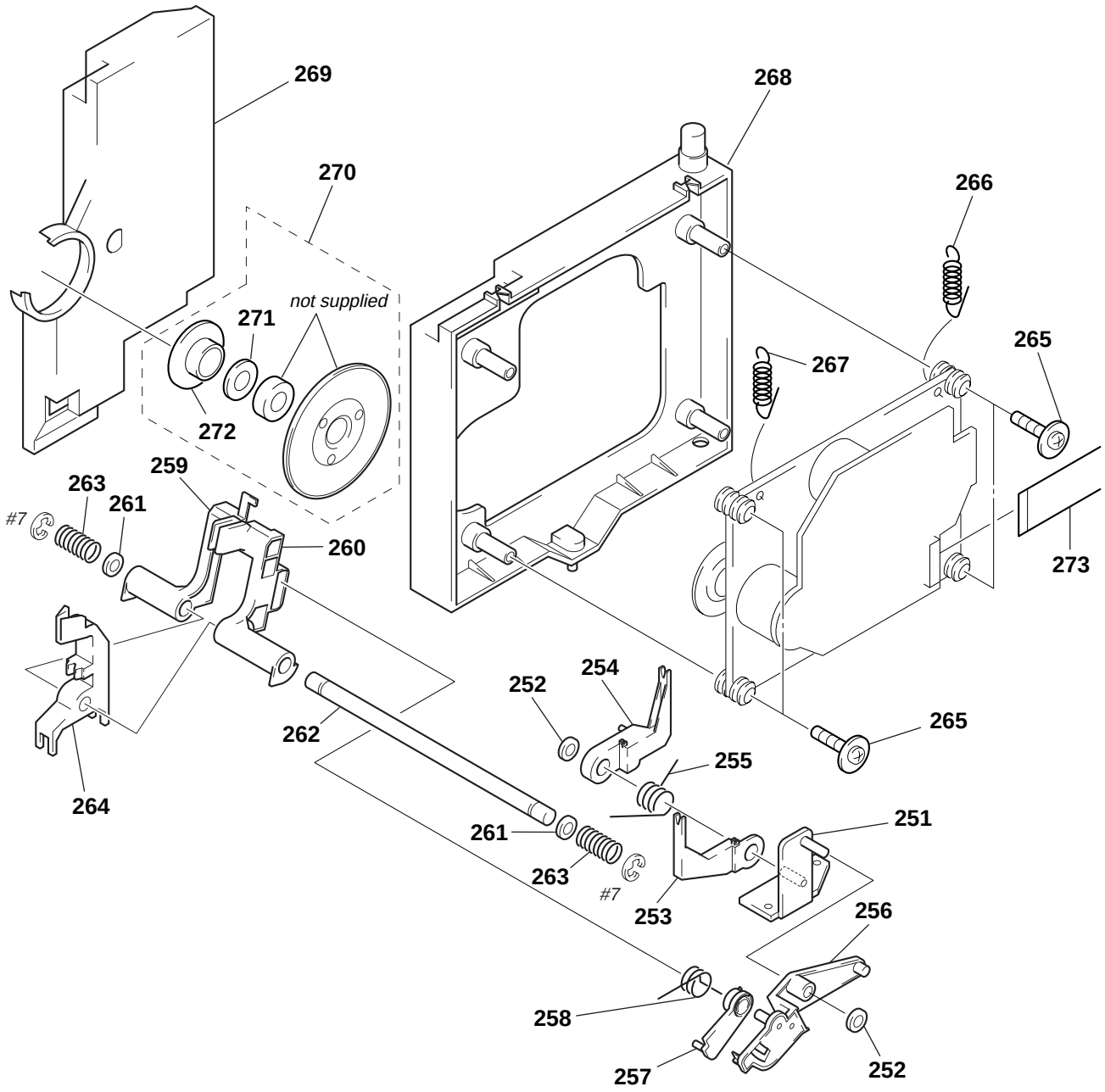
8-5. MECHANISM SECTION 2 (CDM54-K1BD35E)



Ref. No.	Part No.	Description	Remark
201	4-216-054-01	BASE (CDM)	
202	4-216-063-01	SLIDER	
203	1-672-636-11	L.T.MOTOR BOARD	
204	1-672-642-11	SW BOARD	
205	A-4672-676-A	CAM ASSY	
206	4-216-061-01	BELT	
207	4-216-060-01	PULLEY (1)	
208	4-216-057-01	GEAR (CENTER 2)	
209	4-216-059-01	GEAR (TABLE)	
210	4-216-058-01	GEAR (CENTER)	

Ref. No.	Part No.	Description	Remark
211	4-216-081-01	SPRING (MG), TORSION	
212	4-998-716-01	SCREW, BU FITTING	
213	3-701-446-21	WASHER, 8	
214	1-672-643-11	SW2 BOARD	
215	4-216-062-01	LEVER (FULCRUM)	
216	4-951-620-01	SCREW (2.6X8), +BVTP	
217	3-701-441-21	WASHER	
M81	A-4672-675-A	MOTOR ASSY (TABLE)	
M82	A-4672-675-A	MOTOR ASSY (LOADING)	

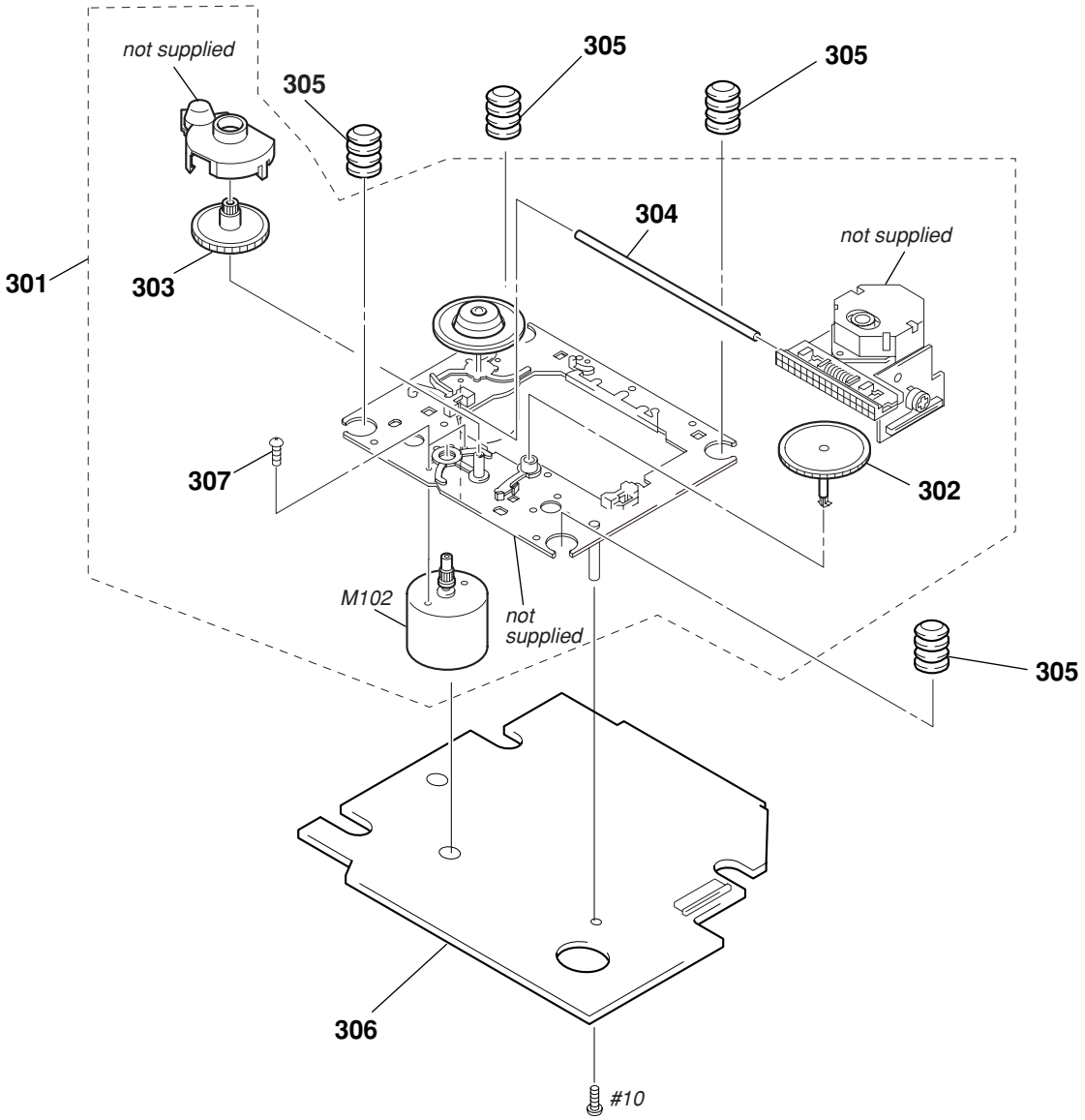
8-6. MECHANISM SECTION 3 (CDM54-K1BD35E)



Ref. No.	Part No.	Description	Remark
251	X-4950-900-1	BRACKET (LEVER) ASSY	
252	3-325-697-21	WASHER	
253	4-216-075-01	HOLDER (F)	
254	4-216-076-01	HOLDER (R)	
255	4-216-077-01	SPRING (HOLDER FR), TORSION	
256	4-216-078-01	LEVER (LOADING)	
257	4-216-079-01	LIMITTER (LEVER)	
258	4-216-080-01	SPRING (LIMITTER), TORSION	
259	X-4950-885-1	HOLDER (DISC L) ASSY	
260	X-4950-886-1	HOLDER (DISC R) ASSY	
261	3-701-441-21	WASHER	
262	4-216-066-01	SHAFT (CLAMP)	

Ref. No.	Part No.	Description	Remark
263	4-216-067-01	SPRING (CLAMP), COMPRESSION	
264	4-216-070-01	LEVER (LOCK)	
265	4-957-577-01	SCREW PTP WH (2.6X8) (DIA. 10)	
266	4-216-086-01	SPRING (F-2), TENSION	
267	4-216-085-01	SPRING (F-1), TENSION	
268	X-4950-901-1	HOLDER ASSY, BU	
269	4-216-082-01	HOLDER (MAGNET), TORSION	
270	A-4672-768-A	MAGNET ASSY	
271	4-960-633-11	YOKE (MAGNET)	
272	4-999-139-02	PULLEY (B)	
273	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	

8-7. OPTICAL PICK-UP SECTION (KSM-213BFN/M-NP)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
⚠301	A-3328-818-A	OPTICAL PICK-UP (KSM-213BFN)	
302	2-626-907-01	GEAR (A)(S)	
303	2-627-003-02	GEAR (B)(RP)	
304	2-626-908-01	SHAFT, SLED	
* 305	4-992-054-01	RUBBER, VIBRATION PROOF	
* 306	A-4724-761-A	BD BOARD, COMPLETE	
307	3-713-786-51	SCREW +P2X3	
M102	X-2625-769-1	MOTOR GEAR ASSY (MB)(RP)(SLED)	

SECTION 9
ELECTRICAL PARTS LIST

BD

Note:

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
  All resistors are in ohms
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F : nonflammable
- SEMICONDUCTORS
  In each case, u: µ , for example:
  uA...: µ A..., uPA...: µ PA..., uPB...: µ PB..., uPC...: µ PC..., uPD...: µ PD...
- CAPACITORS
  uF : µ F
- COILS
  uH : µ H
- Abbreviation
  CND : Canadian model
  AUS : Australian model

Ref. No.	Part No.	Description			Remark
*	A-4724-761-A	BD BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C101	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C102	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C103	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C104	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C106	1-164-346-11	CERAMIC CHIP	1uF		16V
C107	1-164-346-11	CERAMIC CHIP	1uF		16V
C108	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C109	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
C110	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C111	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C112	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C113	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C114	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C115	1-126-607-11	ELECT CHIP	47uF	20%	4V
C116	1-126-607-11	ELECT CHIP	47uF	20%	4V
C117	1-126-209-11	ELECT CHIP	100uF	20%	4V
C118	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C119	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C120	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C121	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C122	1-135-155-21	TANTALUM CHIP	4.7uF	10%	16V
C123	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C124	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C125	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C126	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C127	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C130	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C131	1-135-216-11	TANTALUM CHIP	10uF	20%	10V
C140	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C141	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C151	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C153	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C154	1-164-336-11	CERAMIC CHIP	0.33uF		25V
C156	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C157	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
C159	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C161	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C162	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C163	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C164	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C165	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C166	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C167	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C168	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C171	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C172	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C181	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C182	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
		< CONNECTOR >			
CN101	1-770-072-11	CONNECTOR,(LIF(NON-ZIF))FFC23P			
CN102	1-777-937-11	CONNECTOR, FFC/FPC 16P			
		< IC >			
IC101	8-752-386-85	IC CXD2587Q			
IC102	8-759-455-91	IC BA6392FP-E2			
IC103	8-752-085-51	IC CXA2568M-T6			
		< COIL >			
L101	1-414-234-22	INDUCTOR CHIP	0uH		
L102	1-414-234-22	INDUCTOR CHIP	0uH		
		< TRANSISTOR >			
Q101	8-729-010-08	TRANSISTOR MSB710-R			
		< RESISTOR >			
R101	1-216-077-00	METAL CHIP	15K	5%	1/10W
R102	1-216-097-91	RES,CHIP	100K	5%	1/10W
R103	1-216-077-00	METAL CHIP	15K	5%	1/10W
R104	1-216-085-00	METAL CHIP	33K	5%	1/10W
R105	1-216-097-91	RES,CHIP	100K	5%	1/10W
R106	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R107	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R108	1-216-073-00	METAL CHIP	10K	5%	1/10W
R109	1-216-121-91	RES,CHIP	1M	5%	1/10W
R110	1-216-025-91	RES,CHIP	100	5%	1/10W
R111	1-216-121-91	RES,CHIP	1M	5%	1/10W
R113	1-216-121-91	RES,CHIP	1M	5%	1/10W
R116	1-216-025-91	RES,CHIP	100	5%	1/10W
R117	1-216-049-91	RES,CHIP	1K	5%	1/10W
R119	1-216-043-91	RES,CHIP	560	5%	1/10W
R123	1-216-073-00	METAL CHIP	10K	5%	1/10W
R124	1-216-097-91	RES,CHIP	100K	5%	1/10W
R131	1-216-037-00	METAL CHIP	330	5%	1/10W
R135	1-216-295-91	SHORT	0		
R136	1-216-295-91	SHORT	0		
R137	1-216-295-91	SHORT	0		

Ref. No.	Part No.	Description			Remark
R138	1-216-295-91	SHORT	0		
R143	1-216-103-00	METAL CHIP	180K	5%	1/10W
R144	1-216-103-00	METAL CHIP	180K	5%	1/10W
R147	1-216-081-00	METAL CHIP	22K	5%	1/10W
R148	1-216-001-00	METAL CHIP	10	5%	1/10W
R149	1-216-003-11	RES,CHIP	12	5%	1/10W
R158	1-216-111-00	METAL CHIP	390K	5%	1/10W
R159	1-216-101-00	METAL CHIP	150K	5%	1/10W
R161	1-216-308-00	METAL CHIP	4.7	5%	1/10W
R162	1-216-101-00	METAL CHIP	150K	5%	1/10W
R171	1-216-077-00	METAL CHIP	15K	5%	1/10W
R172	1-216-077-00	METAL CHIP	15K	5%	1/10W
R173	1-216-077-00	METAL CHIP	15K	5%	1/10W
R181	1-216-077-00	METAL CHIP	15K	5%	1/10W
R182	1-216-077-00	METAL CHIP	15K	5%	1/10W
R183	1-216-077-00	METAL CHIP	15K	5%	1/10W
R618	1-216-049-91	RES,CHIP	1K	5%	1/10W
		< SWITCH >			
S101	1-572-085-11	SWITCH, LEAF (LIMIT IN SW)			
		< VIBRATOR >			
X101	1-767-408-21	VIBRATOR, CRYSTAL (16.9344MHz)			
**********					
	1-672-637-11	D.MOTOR BOARD			
		**********			
		< MOTOR >			
M83	1-541-632-11	MOTOR, DC (DOOR)			
**********					
	1-672-640-11	D.SENS (IN) BOARD			
		**********			
*	4-985-300-01	HOLDER (P-T)			
		< TRANSISTOR >			
Q81	8-729-926-31	PHOTO TRANSISTOR PT483F1S (DISC SENSOR)			
**********					
	1-672-641-11	D.SENS (OUT) BOARD			
		**********			
		< DIODE >			
D81	8-719-055-84	DIODE GL-528VS1 (DISC SENSOR)			
**********					
	1-672-634-11	D.SW BOARD			
		**********			
		< RESISTOR >			
R82	1-249-415-11	CARBON	680	5%	1/4W F
R83	1-249-417-11	CARBON	1K	5%	1/4W F
R84	1-249-419-11	CARBON	1.5K	5%	1/4W F

Ref. No.	Part No.	Description			Remark
		< SWITCH >			
SW83	1-571-300-21	SWITCH, ROTARY			
SW84	1-571-300-21	SWITCH, ROTARY			
**********					
	A-4724-546-A	DISPLAY BOARD, COMPLETE (CX350)			
		**********			
	A-4724-566-A	DISPLAY BOARD, COMPLETE (CX300/CX691)			
		**********			
	4-982-811-11	HOLDER (FL)			
		< CAPACITOR >			
C701	1-162-294-31	CERAMIC	0.001uF	10%	50V
C702	1-162-215-31	CERAMIC	47PF	5%	50V
C703	1-162-306-11	CERAMIC	0.01uF	20%	16V
C704	1-164-159-11	CERAMIC	0.1uF		50V
C706	1-162-282-31	CERAMIC	100PF	10%	50V
C707	1-162-282-31	CERAMIC	100PF	10%	50V
C708	1-162-282-31	CERAMIC	100PF	10%	50V
C709	1-162-288-31	CERAMIC	330PF	10%	50V
C710	1-124-584-00	ELECT	100uF	20%	10V
C711	1-164-159-11	CERAMIC	0.1uF		50V
C771	1-162-306-11	CERAMIC	0.01uF	20%	16V (CX350)
C772	1-126-924-11	ELECT	330uF	20%	6.3V (CX350)
C773	1-162-306-11	CERAMIC	0.01uF	20%	16V (CX350)
C774	1-126-924-11	ELECT	330uF	20%	6.3V (CX350)
C775	1-162-306-11	CERAMIC	0.01uF	20%	16V (CX350)
C776	1-126-924-11	ELECT	330uF	20%	6.3V (CX350)
C781	1-164-159-11	CERAMIC	0.1uF		50V
C791	1-124-584-00	ELECT	100uF	20%	10V
		< CONNECTOR >			
CN701	1-568-838-11	SOCKET, CONNECTOR 21P			
* CN702	1-568-954-11	PIN, CONNECTOR 5P (CX350)			
		< DIODE >			
D701	8-719-046-39	DIODE SEL5821A-TH15			
D702	8-719-046-39	DIODE SEL5821A-TH15			
D703	8-719-046-39	DIODE SEL5821A-TH15			
D704	8-719-046-39	DIODE SEL5821A-TH15			
D705	8-719-046-39	DIODE SEL5821A-TH15			
D706	8-719-046-39	DIODE SEL5821A-TH15			
D707	8-719-046-39	DIODE SEL5821A-TH15			
D708	8-719-046-39	DIODE SEL5821A-TH15			
D709	8-719-046-39	DIODE SEL5821A-TH15			
D710	8-719-046-44	DIODE SEL5221S			
D771	8-719-059-14	DIODE SID313BP-TP19 (CX350)			
D772	8-719-059-14	DIODE SID313BP-TP19 (CX350)			
D773	8-719-059-14	DIODE SID313BP-TP19 (CX350)			
D774	8-719-059-14	DIODE SID313BP-TP19 (CX350)			
D775	8-719-059-14	DIODE SID313BP-TP19 (CX350)			

Ref. No.	Part No.	Description			Remark
D780	8-719-911-19	DIODE 1SS119 (CX350)			
D781	8-719-911-19	DIODE 1SS119 (CX350)			
D782	8-719-911-19	DIODE 1SS119 (CX350)			
		< GROUND TERMINAL >			
EB701	1-690-880-41	LEAD (WITH CONNECTOR)			
		< FLUORESCENT INDICATOR >			
FL701	1-517-861-11	INDICATOR TUBE, FLUORESCENT			
		< IC >			
IC701	8-759-498-92	IC MSM9202-03GS-K			
IC702	8-759-183-47	IC M66310FP			
IC703	8-749-014-66	IC NJL56H400A			
		< TRANSISTOR >			
Q701	8-729-900-80	TRANSISTOR DTC114ES			
Q771	8-729-801-93	TRANSISTOR 2SD1387 (CX350)			
Q772	8-729-801-93	TRANSISTOR 2SD1387 (CX350)			
Q773	8-729-801-93	TRANSISTOR 2SD1387 (CX350)			
		< RESISTOR >			
R701	1-249-441-11	CARBON	100K	5%	1/4W
R702	1-247-807-31	CARBON	100	5%	1/4W
R703	1-247-807-31	CARBON	100	5%	1/4W
R704	1-247-807-31	CARBON	100	5%	1/4W
R705	1-247-807-31	CARBON	100	5%	1/4W
R706	1-247-843-11	CARBON	3.3K	5%	1/4W
R707	1-247-807-31	CARBON	100	5%	1/4W
R708	1-247-807-31	CARBON	100	5%	1/4W
R709	1-247-807-31	CARBON	100	5%	1/4W
R711	1-249-411-11	CARBON	330	5%	1/4W
R712	1-249-411-11	CARBON	330	5%	1/4W
R713	1-249-413-11	CARBON	470	5%	1/4W F
R714	1-249-413-11	CARBON	470	5%	1/4W F
R721	1-249-415-11	CARBON	680	5%	1/4W F
R722	1-249-417-11	CARBON	1K	5%	1/4W F
R723	1-249-419-11	CARBON	1.5K	5%	1/4W F
R724	1-249-421-11	CARBON	2.2K	5%	1/4W F
R725	1-247-843-11	CARBON	3.3K	5%	1/4W
R726	1-249-427-11	CARBON	6.8K	5%	1/4W F
R727	1-249-431-11	CARBON	15K	5%	1/4W
R731	1-249-415-11	CARBON	680	5%	1/4W F
R732	1-249-417-11	CARBON	1K	5%	1/4W F
R733	1-249-419-11	CARBON	1.5K	5%	1/4W F
R734	1-249-421-11	CARBON	2.2K	5%	1/4W F
R735	1-247-843-11	CARBON	3.3K	5%	1/4W
R736	1-249-427-11	CARBON	6.8K	5%	1/4W F
R742	1-249-415-11	CARBON	680	5%	1/4W F
R771	1-249-383-11	CARBON	1.5	5%	1/6W F (CX350)
R772	1-249-383-11	CARBON	1.5	5%	1/6W F (CX350)
R773	1-249-383-11	CARBON	1.5	5%	1/6W F (CX350)
R774	1-249-383-11	CARBON	1.5	5%	1/6W F (CX350)
R775	1-247-772-00	CARBON	3.6	5%	1/4W (CX350)
R776	1-247-772-00	CARBON	3.6	5%	1/4W (CX350)
R791	1-249-429-11	CARBON	10K	5%	1/4W
R792	1-249-429-11	CARBON	10K	5%	1/4W
		< SWITCH >			
S721	1-572-184-11	SWITCH, KEYBOARD (GROUP FILE)			
S722	1-572-184-11	SWITCH, KEYBOARD (GROUP 8)			
S723	1-572-184-11	SWITCH, KEYBOARD (GROUP 7)			
S724	1-572-184-11	SWITCH, KEYBOARD (GROUP 6)			
S725	1-572-184-11	SWITCH, KEYBOARD (GROUP 5)			
S726	1-572-184-11	SWITCH, KEYBOARD (GROUP 1)			
S727	1-572-184-11	SWITCH, KEYBOARD (**I**/⏻ STANDBY)			
S728	1-570-157-51	SWITCH, SLIDE (PLAY/OFF TIMER-SW)			
S731	1-572-184-11	SWITCH, KEYBOARD (GROUP 2)			
S732	1-572-184-11	SWITCH, KEYBOARD (GROUP 3)			
S733	1-572-184-11	SWITCH, KEYBOARD (GROUP 4)			
S734	1-572-184-11	SWITCH, KEYBOARD (CONTINUE)			
S735	1-572-184-11	SWITCH, KEYBOARD (SHUFFLE)			
S736	1-572-184-11	SWITCH, KEYBOARD (PROGRAM)			
S737	1-572-184-11	SWITCH, KEYBOARD (REPEAT)			
S741	1-572-184-11	SWITCH, KEYBOARD (HITLIST)			
S742	1-572-184-11	SWITCH, KEYBOARD (TIME/TEXT)			
**********					
	1-672-629-11	JACK BOARD			
		**********			
		< CAPACITOR >			
C327	1-124-282-00	ELECT	22uF	20%	25V
C328	1-162-290-31	CERAMIC	470PF	10%	50V
C427	1-124-282-00	ELECT	22uF	20%	25V
C428	1-162-290-31	CERAMIC	470PF	10%	50V
C951	1-164-159-11	CERAMIC	0.1uF		50V
C952	1-164-159-11	CERAMIC	0.1uF		50V
C953	1-104-665-11	ELECT	100uF	20%	10V
C954	1-164-159-11	CERAMIC	0.1uF		50V
		< IC >			
IC901	8-749-921-12	IC GP1F32T (DIGITAL OUT OPTICAL)			
		< JACK >			
* J901	1-764-188-11	JACK (SMALL TYPE) (DIA. 3.5)			(S-LINK CONTROL A1)
* J902	1-764-188-11	JACK (SMALL TYPE) (DIA. 3.5)			(S-LINK CONTROL A1)
J903	1-784-429-11	JACK, PIN 4P (2ND CD IN/LINE OUT)			
		< COIL >			
L950	1-410-503-11	INDUCTOR	3.3uH		
		< TRANSISTOR >			
Q950	8-729-620-05	TRANSISTOR 2SC2603-EF			

JACK **JOG** **KEY**

Ref. No.	Part No.	Description				Remark
		< RESISTOR >				
R339	1-215-485-00	METAL	470K	1%	1/4W	
R340	1-215-405-00	METAL	220	1%	1/4W	
R439	1-215-485-00	METAL	470K	1%	1/4W	
R440	1-215-405-00	METAL	220	1%	1/4W	
R950	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R951	1-249-429-11	CARBON	10K	5%	1/4W	
R952	1-249-393-11	CARBON	10	5%	1/4W	F
		< SWITCH >				
S902	1-762-910-11	SWITCH, SLIDE (COMMAND MODE CD)				

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	A-4724-545-A	JOG BOARD, COMPLETE (CX350)	
		**********	
	A-4724-565-A	JOG BOARD, COMPLETE (CX300/CX691)	
		**********	
		< DIODE >	
D711	8-719-046-40	DIODE SEL5521C-TH8F (▷)	
D712	8-719-046-38	DIODE SEL5821A-TH8F (▮▮)	
D713	8-719-032-98	DIODE SEL5820A (MEGA CONTROL)	
D714	8-719-032-86	DIODE SEL5420E (EASY PLAY)	
D715	8-719-032-98	DIODE SEL5820A (MEGA CONTROL)	
D716	8-719-032-86	DIODE SEL5420E (EASY PLAY)	
		< RESISTOR >	

R715	1-249-407-11	CARBON	150	5%	1/4W	F
R716	1-249-409-11	CARBON	220	5%	1/4W	F
R717	1-249-401-11	CARBON	47	5%	1/4W	F
R718	1-249-401-11	CARBON	47	5%	1/4W	F
R737	1-249-431-11	CARBON	15K	5%	1/4W	
R743	1-249-417-11	CARBON	1K	5%	1/4W	F
R744	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R745	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R746	1-247-843-11	CARBON	3.3K	5%	1/4W	
R747	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R748	1-249-431-11	CARBON	15K	5%	1/4W	
R752	1-249-415-11	CARBON	680	5%	1/4W	F
R753	1-249-417-11	CARBON	1K	5%	1/4W	F
R754	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R755	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R756	1-247-843-11	CARBON	3.3K	5%	1/4W	
R757	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R762	1-249-415-11	CARBON	680	5%	1/4W	F
R763	1-249-417-11	CARBON	1K	5%	1/4W	F
R764	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R765	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R766	1-247-843-11	CARBON	3.3K	5%	1/4W	
R767	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R793	1-249-429-11	CARBON	10K	5%	1/4W	

< ROTARY ENCODER >

RE701	1-475-543-11	ENCODER, ROTARY	
		(⏮ AMS ⏭ PUSH ENTER)	
RE702	1-475-543-11	ENCODER, ROTARY	
		(DISC/CHARACTER PUSH ENTER)	
		< SWITCH >	
S743	1-572-184-11	SWITCH, KEYBOARD (YES)	
S744	1-572-184-11	SWITCH, KEYBOARD (+100)	
S745	1-572-184-11	SWITCH, KEYBOARD (MENU/NO)	
S751	1-572-184-11	SWITCH, KEYBOARD (CLEAR)	
S752	1-572-184-11	SWITCH, KEYBOARD (FADER)	
S753	1-572-184-11	SWITCH, KEYBOARD (CHECK)	
S754	1-572-184-11	SWITCH, KEYBOARD (NO DELAY)	
S755	1-572-184-11	SWITCH, KEYBOARD (MEMO SEARCH)	
S756	1-572-184-11	SWITCH, KEYBOARD (X-FADE)	
S761	1-572-184-11	SWITCH, KEYBOARD (EASY PLAY)	
S762	1-572-184-11	SWITCH, KEYBOARD (MEGA CONTROL)	
S763	1-572-184-11	SWITCH, KEYBOARD (■/DISC EJECT)	
S764	1-572-184-11	SWITCH, KEYBOARD (▮▮)	
S765	1-572-184-11	SWITCH, KEYBOARD (▷)	
S766	1-572-184-11	SWITCH, KEYBOARD (⏏ OPEN/CLOSE)	

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	1-672-632-11	KEY BOARD BOARD	
		**********	
		< CAPACITOR >	
C792	1-126-925-11	ELECT 470uF 20%	10V
C821	1-164-159-11	CERAMIC 0.1uF	50V
C822	1-164-159-11	CERAMIC 0.1uF	50V
		< CONNECTOR >	
* CNP203	1-568-944-11	PIN, CONNECTOR 6P (CX300/CX691)	
* CNP203	1-568-947-11	PIN, CONNECTOR 9P (CX350)	
		< DIODE >	
D821	8-719-109-85	DIODE RD5.1ES-B2	
D822	8-719-109-85	DIODE RD5.1ES-B2	
D823	8-719-109-85	DIODE RD5.1ES-B2	
		< JACK >	
J821	1-785-945-11	CONNECTOR, DIN (KEY BOARD)	
		< COIL >	
L821	1-424-122-11	FILTER, NOISE	
L822	1-424-122-11	FILTER, NOISE	
L823	1-424-122-11	FILTER, NOISE	
L824	1-424-122-11	FILTER, NOISE	
		< RESISTOR >	
R801	1-249-429-11	CARBON 10K 5%	1/4W (CX300/CX691)

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Ref. No.	Part No.	Description				Remark
	1-672-636-11	L.T. MOTOR BOARD				
		**********				
		< MOTOR >				
M81	1-541-632-11	MOTOR, DC (TABLE)				
M82	1-541-632-11	MOTOR, DC (LOADING)				
**********						
	1-672-633-11	LED BOARD				
		*********				
*	4-976-473-01	HOLDER (LED-S)				
		< CAPACITOR >				
C804	1-164-159-11	CERAMIC	0.1uF			50V
		< CONNECTOR >				
* CN813	1-568-942-11	PIN, CONNECTOR 4P				
		< DIODE >				
D802	8-719-071-41	DIODE	SELS5923C-TP15			
D803	8-719-071-42	DIODE	SEL5723C-TP15			
D804	8-719-072-76	DIODE	SEL5E23C-TP15			
D805	8-719-071-42	DIODE	SEL5723C-TP15			
D806	8-719-071-41	DIODE	SELS5923C-TP15			
		< RESISTOR >				
R805	1-249-401-11	CARBON	47	5%	1/4W	F
R806	1-249-399-11	CARBON	33	5%	1/4W	F
R807	1-249-401-11	CARBON	47	5%	1/4W	F
**********						
	A-4724-557-A	MAIN BOARD, COMPLETE (CX350:US,CND)				
		**********				
	A-4724-560-A	MAIN BOARD, COMPLETE (CX350:AEP,UK,AUS)				
		**********				
	A-4724-567-A	MAIN BOARD, COMPLETE (CX300/CX691)				
		**********				
	7-685-871-01	SCREW +BVTT 3X6 (S)				
		< CAPACITOR >				
C301	1-126-965-11	ELECT	22uF	20%	50V	
C304	1-126-965-11	ELECT	22uF	20%	50V	
C305	1-104-664-11	ELECT	47uF	20%	10V	
C307	1-126-964-11	ELECT	10uF	20%	50V	
C321	1-126-963-11	ELECT	4.7uF	20%	50V	
C329	1-126-962-11	ELECT	3.3uF	20%	50V	
C401	1-126-965-11	ELECT	22uF	20%	50V	
C404	1-126-965-11	ELECT	22uF	20%	50V	
C405	1-104-664-11	ELECT	47uF	20%	10V	
C407	1-126-964-11	ELECT	10uF	20%	50V	
C501	1-104-665-11	ELECT	100uF	20%	10V	
C502	1-164-159-11	CERAMIC	0.1uF		50V	
C503	1-161-494-00	CERAMIC	0.022uF		25V	
C504	1-104-665-11	ELECT	100uF	20%	10V	
C505	1-161-494-00	CERAMIC	0.022uF	30%	28V	

Ref. No.	Part No.	Description			Remark
C510	1-161-494-00	CERAMIC	0.022uF		25V
C511	1-161-494-00	CERAMIC	0.022uF		25V
C512	1-161-494-00	CERAMIC	0.022uF		25V
C514	1-164-159-11	CERAMIC	0.1uF		50V
C516	1-164-159-11	CERAMIC	0.1uF		50V
C518	1-164-159-11	CERAMIC	0.1uF		50V
C520	1-110-489-11	CAPACITOR	1F		5.5V
C521	1-164-159-11	CERAMIC	0.1uF		50V
C530	1-136-165-00	FILM	0.1uF	5%	50V
C531	1-126-933-11	ELECT	100uF	20%	16V
C532	1-164-159-11	CERAMIC	0.1uF		50V
C534	1-164-159-11	CERAMIC	0.1uF		50V
C540	1-136-165-00	FILM	0.1uF	5%	50V
C541	1-126-933-11	ELECT	100uF	20%	16V
C542	1-164-159-11	CERAMIC	0.1uF		50V
C544	1-164-159-11	CERAMIC	0.1uF		50V
C550	1-136-173-00	FILM	0.47uF	5%	50V
C551	1-136-173-00	FILM	0.47uF	5%	50V
C552	1-109-953-11	ELECT	2.2uF	20%	50V
C553	1-164-159-11	CERAMIC	0.1uF		50V
C554	1-164-159-11	CERAMIC	0.1uF		50V
C555	1-164-159-11	CERAMIC	0.1uF		50V
C559	1-126-967-11	ELECT	47uF	20%	50V
C560	1-136-173-00	FILM	0.47uF	5%	50V
C580	1-126-960-11	ELECT	1uF	20%	50V (CX350)
C581	1-164-159-11	CERAMIC	0.1uF		50V (CX350)
C582	1-104-665-11	ELECT	100uF	20%	10V (CX350)
C591	1-104-665-11	ELECT	100uF	20%	10V
C592	1-104-665-11	ELECT	100uF	20%	10V
C720	1-161-494-00	CERAMIC	0.022uF		25V
C730	1-161-494-00	CERAMIC	0.022uF		25V
C740	1-161-494-00	CERAMIC	0.022uF		25V
C750	1-161-494-00	CERAMIC	0.022uF		25V
C760	1-161-494-00	CERAMIC	0.022uF		25V
C913	1-126-768-11	ELECT	2200uF	20%	16V
C914	1-126-768-11	ELECT	2200uF	20%	16V
C915	1-126-933-11	ELECT	100uF	20%	16V
C917	1-126-925-11	ELECT	470uF	20%	10V
C923	1-126-768-11	ELECT	2200uF	20%	16V
C924	1-126-768-11	ELECT	2200uF	20%	16V
C925	1-126-933-11	ELECT	100uF	20%	16V
C926	1-126-933-11	ELECT	100uF	20%	16V
C927	1-126-925-11	ELECT	470uF	20%	10V
C928	1-126-925-11	ELECT	470uF	20%	10V
C933	1-126-933-11	ELECT	100uF	20%	16V
C936	1-126-963-11	ELECT	4.7uF	20%	50V
C938	1-126-935-11	ELECT	470uF	20%	16V
C939	1-126-963-11	ELECT	4.7uF	20%	50V
C940	1-128-576-11	ELECT	100uF	20%	63V
C941	1-126-948-11	ELECT	100uF	20%	35V
		< CONNECTOR >			
* CN501	1-568-839-11	SOCKET, CONNECTOR 23P			
CN502	1-568-838-11	SOCKET, CONNECTOR 21P			
* CN503	1-568-936-11	PIN, CONNECTOR 9P (CX350)			
* CN503	1-568-955-11	PIN, CONNECTOR 6P (CX300/CX691)			

MAIN

Ref. No.	Part No.	Description	Remark
CN504	1-506-469-11	PIN, CONNECTOR 4P	
CN505	1-506-469-11	PIN, CONNECTOR 4P	
* CN506	1-564-518-11	PLUG, CONNECTOR 3P	
* CN507	1-568-934-11	PIN, CONNECTOR 7P	
* CN508	1-568-953-41	PIN, CONNECTOR 4P	
CN509	1-506-469-11	PIN, CONNECTOR 4P	
* CN510	1-564-509-11	PLUG, CONNECTOR 6P	
* CN511	1-568-935-11	PIN, CONNECTOR 8P	
* CN901	1-564-511-11	PLUG, CONNECTOR 8P	
* CN902	1-564-508-11	PLUG, CONNECTOR 5P	
* CN903	1-564-507-11	PLUG, CONNECTOR 4P	
		< DIODE >	
D325	8-719-911-19	DIODE 1SS119	
D327	8-719-911-19	DIODE 1SS119	
D329	8-719-911-19	DIODE 1SS119	
D425	8-719-911-19	DIODE 1SS119	
D501	8-719-911-19	DIODE 1SS119	
D521	8-719-911-19	DIODE 1SS119	
D550	8-719-110-36	DIODE RD13ES-B2	
D580	8-719-911-19	DIODE 1SS119 (CX350)	
D940	8-719-024-99	DIODE 11ES2-NTA2B	
D941	8-719-110-72	DIODE RD30ESB2	
D942	8-719-109-93	DIODE RD6.2ESB2	
		< IC >	
IC302	8-749-015-59	IC BA4558-HT	
IC401	8-749-015-59	IC BA4558-HT	
IC402	8-749-015-59	IC BA4558-HT	
IC501	8-759-574-44	IC MN101C12G-SA	
IC502	8-759-545-07	IC TMP87C447U-4A06 (CX350)	
IC503	8-759-267-86	IC SN74HC00ANS (CX350)	
IC504	8-759-463-99	IC M5M5256DFP-70XL	
IC505	8-759-822-38	IC LA6510	
IC506	8-759-822-38	IC LA6510	
IC910	8-759-094-53	IC TA7805S	
IC920	8-759-605-00	IC M5F78M07L	
IC921	8-759-094-53	IC TA7805S	
IC930	8-759-173-39	IC NJU7201L50-T3	
IC931	8-759-821-93	IC LA5601	
		< TRANSISTOR >	
Q321	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q322	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q323	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q324	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q325	8-729-900-65	TRANSISTOR DTA144ES	
Q326	8-729-900-65	TRANSISTOR DTA144ES	
Q327	8-729-900-65	TRANSISTOR DTA144ES	
Q328	8-729-900-65	TRANSISTOR DTA144ES	
Q329	8-729-900-65	TRANSISTOR DTA144ES	
Q421	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q422	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q423	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q424	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q425	8-729-900-65	TRANSISTOR DTA144ES	
Q426	8-729-900-65	TRANSISTOR DTA144ES	

Ref. No.	Part No.	Description	Remark
Q521	8-729-030-08	TRANSISTOR DTC144VSA-TP	
Q550	8-729-900-89	TRANSISTOR DTC144ES	
Q551	8-729-900-65	TRANSISTOR DTA144ES	
Q552	8-729-900-65	TRANSISTOR DTA144ES	
Q559	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q560	8-729-900-89	TRANSISTOR DTC144ES	
Q561	8-729-900-65	TRANSISTOR DTA144ES	
Q562	8-729-900-65	TRANSISTOR DTA144ES	
Q570	8-729-900-80	TRANSISTOR DTC114ES	
Q571	8-729-900-80	TRANSISTOR DTC114ES	
Q572	8-729-422-57	TRANSISTOR UN4111	
Q573	8-729-422-57	TRANSISTOR UN4111	
Q574	8-729-422-57	TRANSISTOR UN4111	
Q576	8-729-422-57	TRANSISTOR UN4111 (CX300/CX691)	
Q580	8-729-900-80	TRANSISTOR DTC114ES (CX350)	
Q581	8-729-620-05	TRANSISTOR 2SC2603-EF (CX350)	
Q940	8-729-140-97	TRANSISTOR 2SB734-34	
		< RESISTOR >	
R1	1-249-429-11	CARBON 10K 5% 1/4W (CX300/CX691)	
R301	1-215-453-00	METAL 22K 1% 1/4W	
R302	1-215-425-00	METAL 1.5K 1% 1/4W	
R303	1-215-425-00	METAL 1.5K 1% 1/4W	
R304	1-215-445-00	METAL 10K 1% 1/4W	
R305	1-215-443-00	METAL 8.2K 1% 1/4W	
R306	1-215-485-00	METAL 470K 1% 1/4W	
R307	1-215-427-00	METAL 1.8K 1% 1/4W	
R308	1-215-443-00	METAL 8.2K 1% 1/4W	
R309	1-215-417-00	METAL 680 1% 1/4W	
R310	1-215-445-00	METAL 10K 1% 1/4W	
R311	1-215-445-00	METAL 10K 1% 1/4W	
R312	1-215-445-00	METAL 10K 1% 1/4W	
R313	1-215-477-00	METAL 220K 1% 1/4W	
R314	1-215-405-00	METAL 220 1% 1/4W	
R315	1-215-405-00	METAL 220 1% 1/4W	
R316	1-215-373-31	METAL 10 1% 1/4W	
R317	1-215-443-00	METAL 8.2K 1% 1/4W	
R321	1-249-421-11	CARBON 2.2K 5% 1/4W	F
R322	1-249-421-11	CARBON 2.2K 5% 1/4W	F
R323	1-249-421-11	CARBON 2.2K 5% 1/4W	F
R324	1-249-421-11	CARBON 2.2K 5% 1/4W	F
R325	1-249-441-11	CARBON 100K 5% 1/4W	
R326	1-249-441-11	CARBON 100K 5% 1/4W	
R327	1-249-441-11	CARBON 100K 5% 1/4W	
R328	1-249-441-11	CARBON 100K 5% 1/4W	
R329	1-249-441-11	CARBON 100K 5% 1/4W	
R401	1-215-453-00	METAL 22K 1% 1/4W	
R402	1-215-425-00	METAL 1.5K 1% 1/4W	
R403	1-215-425-00	METAL 1.5K 1% 1/4W	
R404	1-215-445-00	METAL 10K 1% 1/4W	
R405	1-215-443-00	METAL 8.2K 1% 1/4W	
R406	1-215-485-00	METAL 470K 1% 1/4W	
R407	1-215-427-00	METAL 1.8K 1% 1/4W	
R408	1-215-443-00	METAL 8.2K 1% 1/4W	
R409	1-215-417-00	METAL 680 1% 1/4W	
R410	1-215-445-00	METAL 10K 1% 1/4W	

Ref. No.	Part No.	Description			Remark
R411	1-215-445-00	METAL	10K	1%	1/4W
R412	1-215-445-00	METAL	10K	1%	1/4W
R413	1-215-477-00	METAL	220K	1%	1/4W
R414	1-215-405-00	METAL	220	1%	1/4W
R415	1-215-405-00	METAL	220	1%	1/4W
R416	1-215-373-31	METAL	10	1%	1/4W
R417	1-215-443-00	METAL	8.2K	1%	1/4W
R421	1-249-421-11	CARBON	2.2K	5%	1/4W F
R422	1-249-421-11	CARBON	2.2K	5%	1/4W F
R423	1-249-421-11	CARBON	2.2K	5%	1/4W F
R424	1-249-421-11	CARBON	2.2K	5%	1/4W F
R425	1-249-441-11	CARBON	100K	5%	1/4W
R426	1-249-441-11	CARBON	100K	5%	1/4W
R501	1-249-429-11	CARBON	10K	5%	1/4W
R502	1-249-429-11	CARBON	10K	5%	1/4W
R503	1-249-441-11	CARBON	100K	5%	1/4W
R504	1-249-429-11	CARBON	10K	5%	1/4W
R505	1-249-429-11	CARBON	10K	5%	1/4W
R506	1-249-429-11	CARBON	10K	5%	1/4W
R507	1-249-429-11	CARBON	10K	5%	1/4W
R508	1-249-429-11	CARBON	10K	5%	1/4W
R509	1-249-429-11	CARBON	10K	5%	1/4W
R510	1-249-427-11	CARBON	6.8K	5%	1/4W F
R511	1-249-427-11	CARBON	6.8K	5%	1/4W F
R513	1-249-429-11	CARBON	10K	5%	1/4W
R514	1-249-429-11	CARBON	10K	5%	1/4W
R515	1-249-429-11	CARBON	10K	5%	1/4W
R516	1-249-429-11	CARBON	10K	5%	1/4W
R517	1-249-429-11	CARBON	10K	5%	1/4W
R518	1-249-437-11	CARBON	47K	5%	1/4W
R520	1-249-429-11	CARBON	10K	5%	1/4W
R521	1-249-429-11	CARBON	10K	5%	1/4W
R522	1-249-403-11	CARBON	68	5%	1/4W F
R523	1-249-403-11	CARBON	68	5%	1/4W F
R530	1-247-860-11	CARBON	16K	5%	1/4W
R531	1-247-885-00	CARBON	180K	5%	1/4W
R532	1-247-885-00	CARBON	180K	5%	1/4W
R533	1-247-883-00	CARBON	150K	5%	1/4W
R534	1-249-382-11	CARBON	1.2	5%	1/6W F
R535	1-249-382-11	CARBON	1.2	5%	1/6W F
R536	1-249-393-11	CARBON	10	5%	1/4W F
R537	1-249-431-11	CARBON	15K	5%	1/4W
R540	1-247-860-11	CARBON	16K	5%	1/4W
R541	1-247-885-00	CARBON	180K	5%	1/4W
R542	1-247-885-00	CARBON	180K	5%	1/4W
R543	1-247-883-00	CARBON	150K	5%	1/4W
R544	1-249-382-11	CARBON	1.2	5%	1/6W F
R545	1-249-382-11	CARBON	1.2	5%	1/6W F
R546	1-249-393-11	CARBON	10	5%	1/4W F
R547	1-249-431-11	CARBON	15K	5%	1/4W
R550	1-249-421-11	CARBON	2.2K	5%	1/4W F
R551	1-249-441-11	CARBON	100K	5%	1/4W
R552	1-249-417-11	CARBON	1K	5%	1/4W F
R553	1-249-441-11	CARBON	100K	5%	1/4W
R554	1-247-883-00	CARBON	150K	5%	1/4W
R555	1-249-425-11	CARBON	4.7K	5%	1/4W F
R556	1-249-382-11	CARBON	1.2	5%	1/6W F
R557	1-249-382-11	CARBON	1.2	5%	1/6W F
R558	1-247-807-31	CARBON	100	5%	1/4W
R559	1-249-419-11	CARBON	1.5K	5%	1/4W F
R560	1-249-421-11	CARBON	2.2K	5%	1/4W F
R561	1-249-441-11	CARBON	100K	5%	1/4W
R562	1-249-417-11	CARBON	1K	5%	1/4W F
R563	1-249-441-11	CARBON	100K	5%	1/4W
R564	1-247-883-00	CARBON	150K	5%	1/4W
R565	1-249-425-11	CARBON	4.7K	5%	1/4W F
R566	1-249-382-11	CARBON	1.2	5%	1/6W F
R567	1-249-382-11	CARBON	1.2	5%	1/6W F
R569	1-249-419-11	CARBON	1.5K	5%	1/4W F
R570	1-249-425-11	CARBON	4.7K	5%	1/4W F
R571	1-249-425-11	CARBON	4.7K	5%	1/4W F
R580	1-249-429-11	CARBON	10K	5%	1/4W (CX350)
R581	1-249-429-11	CARBON	10K	5%	1/4W (CX350)
R582	1-249-429-11	CARBON	10K	5%	1/4W (CX350)
R583	1-249-425-11	CARBON	4.7K	5%	1/4W F (CX350)
R584	1-249-437-11	CARBON	47K	5%	1/4W (CX350)
R591	1-247-807-31	CARBON	100	5%	1/4W
R592	1-247-807-31	CARBON	100	5%	1/4W
R593	1-247-807-31	CARBON	100	5%	1/4W
R594	1-247-807-31	CARBON	100	5%	1/4W
R595	1-247-807-31	CARBON	100	5%	1/4W
R720	1-249-427-11	CARBON	6.8K	5%	1/4W F
R730	1-249-427-11	CARBON	6.8K	5%	1/4W F
R740	1-249-427-11	CARBON	6.8K	5%	1/4W F
R750	1-249-427-11	CARBON	6.8K	5%	1/4W F
R760	1-249-427-11	CARBON	6.8K	5%	1/4W F
R940	1-249-425-11	CARBON	4.7K	5%	1/4W F
R941	1-249-435-11	CARBON	33K	5%	1/4W

< VARIABLE RESISTOR >

RV501	1-241-786-11	RES, ADJ, CARBON 22K			

< VIBRATOR >

X501	1-579-175-11	VIBRATOR, CERAMIC (10MHz)			
X580	1-767-938-21	VIBRATOR, CERAMIC (7.28MHz)(CX350)			

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	1-672-638-11	POWER BOARD			

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< CAPACITOR >

C901	1-113-925-11	CERAMIC	0.01uF	20%	250V
C910	1-161-494-00	CERAMIC	0.022uF		25V
C911	1-126-767-11	ELECT	1000uF	20%	16V
C912	1-126-767-11	ELECT	1000uF	20%	16V
C920	1-161-494-00	CERAMIC	0.022uF		25V
C921	1-126-767-11	ELECT	1000uF	20%	16V
C922	1-126-767-11	ELECT	1000uF	20%	16V
C932	1-126-936-11	ELECT	3300uF	20%	16V

Ver. 1.1

POWER **T. SENS** **SW** **SW2**

Ref. No.	Part No.	Description				Remark
C937	1-126-960-11	ELECT	1uF	20%	50V	
		< CONNECTOR >				
* CN991	1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P				
		< DIODE >				
D901	8-719-911-19	DIODE 1SS119				
D910	8-719-024-99	DIODE 11ES2-NTA2B				
D911	8-719-024-99	DIODE 11ES2-NTA2B				
D912	8-719-024-99	DIODE 11ES2-NTA2B				
D913	8-719-024-99	DIODE 11ES2-NTA2B				
D920	8-719-200-77	DIODE 10E2N				
D921	8-719-200-77	DIODE 10E2N				
D922	8-719-200-77	DIODE 10E2N				
D923	8-719-200-77	DIODE 10E2N				
D930	8-719-911-19	DIODE 1SS119				
D931	8-719-911-19	DIODE 1SS119				
D932	8-719-210-21	DIODE 11EQS04				
D933	8-719-210-21	DIODE 11EQS04				
D934	8-719-210-21	DIODE 11EQS04				
D935	8-719-210-21	DIODE 11EQS04				
D939	8-719-911-19	DIODE 1SS119				
		< GROUND TERMINAL >				
EB1	1-537-770-21	TERMINAL BOARD, GROUND				
EB2	1-537-770-21	TERMINAL BOARD, GROUND				
		< COIL >				
⚠L901	1-424-485-11	FILTER, LINE				
		< TRANSISTOR >				
Q930	8-729-620-05	TRANSISTOR 2SC2603-EF				
		< RESISTOR >				
R930	1-249-429-11	CARBON	10K	5%	1/4W	
R931	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R933	1-249-429-11	CARBON	10K	5%	1/4W	
R934	1-249-417-11	CARBON	1K	5%	1/4W	F
		< RELAY >				
⚠RY901	1-755-299-11	RELAY				
**********						
	1-672-639-11	T. SENS BOARD				
		**********				
		< CONNECTOR >				
CN81	1-506-486-11	PIN, CONNECTOR 7P				
CN82	1-506-481-11	PIN, CONNECTOR 2P				
CN83	1-506-481-11	PIN, CONNECTOR 2P				
		< IC >				
IC81	8-749-924-18	IC PHOTO INTERRUPTER RPI-1391 (TABLE SENSOR)				
IC82	8-749-924-18	IC PHOTO INTERRUPTER RPI-1391 (TABLE SENSOR)				
IC83	8-749-924-18	IC PHOTO INTERRUPTER RPI-1391 (TABLE SENSOR)				
IC84	8-749-924-18	IC PHOTO INTERRUPTER RPI-1391 (TABLE SENSOR)				
		< RESISTOR >				
R81	1-249-416-11	CARBON	820	5%	1/4W	F
R82	1-249-416-11	CARBON	820	5%	1/4W	F
R83	1-249-416-11	CARBON	820	5%	1/4W	F
R84	1-249-416-11	CARBON	820	5%	1/4W	F
R85	1-249-415-11	CARBON	680	5%	1/4W	F
**********						
	1-672-642-11	SW BOARD				
		********				
		< SWITCH >				
S81	1-571-300-21	SWITCH, ROTARY (LOADING DET)				
**********						
	1-672-643-11	SW2 BOARD				
		*********				
		< SWITCH >				
S82	1-771-604-11	SWITCH, DETECTION (LOADING)				
**********						
		MISCELLANEOUS				
		**********				
7	1-790-420-11	WIRE (FLAT TYPE) (21 CORE)				
8	1-773-183-11	WIRE (FLAT TYPE) (23 CORE)				
114	1-790-420-11	WIRE (FLAT TYPE) (21 CORE)				
273	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)				
⚠301	A-3328-818-A	OPTICAL PICK-UP (KSM-213BFN)				
⚠CNP901	1-575-651-21	CORD, POWER (CX350:AEP)				
⚠CNP901	1-696-845-11	CORD, POWER (CX350:AUS)				
⚠CNP901	1-751-529-11	CORD, POWER (CX350:UK)				
⚠CNP901	1-783-531-41	CORD, POWER (CX300/CX350:US,CND/CX691)				
FL701	1-517-861-11	INDICATOR TUBE, FLUORESCENT				
M102	X-2625-769-1	MOTOR GEAR ASSY (MB)(RP)(SLED)				
M81	A-4672-675-A	MOTOR ASSY (TABLE)				
M82	A-4672-675-A	MOTOR ASSY (LOADING)				
M83	X-4950-062-1	MOTOR ASSY (DOOR)				
⚠T901	1-433-666-11	TRANSFORMER, POWER (CX300/CX350:US,CND/CX691)				
⚠T901	1-433-668-11	TRANSFORMER, POWER (CX350:AEP,UK)				
⚠T901	1-433-877-11	TRANSFORMER, POWER (CX350:AUS)				
⚠T902	1-433-663-11	TRANSFORMER, POWER (CX300/CX350:US,CND/CX691)				
⚠T902	1-433-665-11	TRANSFORMER, POWER (CX350:AEP,UK,AUS)				
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The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
		ACCESSORIES & PACKING MATERIALS	
		**********	
	1-418-254-11	REMOTE COMMANDER (RM-DX350) (CX350)	
	1-418-419-11	COMMANDER, REMOTE (RM-DX300) (CX300)	
	1-776-263-11	CORD, CONNECTION (AUDIO)	
	1-777-172-11	CORD, CONNECTION (CONTROL A1:CND)	
	3-810-765-11	MANUAL,COMMONNESS INSTRUCTION (FOR CONTROL A1) (CX300:US/CX350:US/CX691)	
	3-810-765-21	MANUAL,COMMONNESS INSTRUCTION (FOR CONTROL A1) (CX300:CND/CX350:CND,AEP,UK,AUS)	
	3-866-362-11	MANUAL, INSTRUCTION (ENGLISH) (CX300/CX691)	
	3-866-362-21	MANUAL, INSTRUCTION (FRENCH) (CX300:CND)	
	3-866-363-11	MANUAL, INSTRUCTION (ENGLISH) (CX350:US,AUS)	
	3-866-363-21	MANUAL, INSTRUCTION (ENGLISH, FRENCH) (CX350:CND,AEP,UK)	
	3-866-363-31	MANUAL, INSTRUCTION (SPANISH, PORTUGUESE, GERMAN) (CX350:AEP)	
	3-866-363-41	MANUAL, INSTRUCTION (DUTCH, SWEDISH, ITALIAN) (CX350:AEP)	
	4-219-390-01	LABEL (DISC NUMBER)	
	4-984-086-01	BOOKLET (100)	
	4-210-990-01	COVER, BATTERY (FOR RM-DX350) (CX350)	
	4-981-643-01	COVER, BATTERY (FOR RM-DX300) (CX300)	
	4-222-573-01	UPPER COVER (RM-DX350) (CX350)	

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HARDWARE LIST
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#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#2	7-685-871-01	SCREW +BVTT 3X6 (S)	
#3	7-685-650-79	SCREW +BVTP 3X16 TYPE2 N-S	
#4	7-685-903-11	SCREW +PTPWH 3X6 (TYPE2)	
#5	7-685-645-79	SCREW +BVTP 3X6 TYPE2 N-S	
#6	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S	
#7	7-624-106-04	STOP RING 3.0, TYPE -E	
#8	7-682-948-01	SCREW +PSW 3X8	
#9	7-621-775-00	SCREW +B 2.6X3	
#10	7-621-772-21	SCREW +B 2X5	

REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	1999.04	New
1.1	2005.08	Change the optical pick-up to KSM-213BFN. Change the service classification of M101 to not supplied. (SPM-05055)